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=> d his

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L3             450 S L1 FULL
L4             411 S L3 AND CAPLUS/LC

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L1                STR
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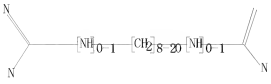


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DATE SPECIFICATION IS NOT VALID

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L6              9 L5 AND ED<07/18/2003

=> d l-9 ide can
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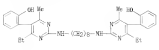
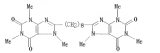
L6 ANSWER 1 OF 9 REGISTRY COPYRIGHT 2006 ACS on STN
RN 550649-43-9 REGISTRY
ED Entered STN: 04 Apr 2003
CN Phenol, 2,2'-[1,8-octanediylbis[imino(4-ethyl-6-methyl-2,5-pyrimidinediyl)]]bis- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN NSC 340603
MF C24 H34 N6 O2
SR Chemical Library



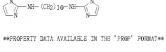
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 2 OF 9 REGISTRY COPYRIGHT 2006 ACS on STN
RN 5013059-29-5 REGISTRY
ED Entered STN: 02 Apr 2006
CN 1H-Purine-2,6-dione, 8,8'-(1,8-octanediyl)bis[3,7-dihydro-1,3,7-trimethyl- (CA INDEX NAME)
OTHER NAMES:
CN NSC 143295
MF C24 H34 N8 O4
SR Chemical Library



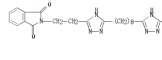
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 3 OF 9 REGISTRY COPYRIGHT 2006 ACS on STN
RN 590697-63-6 REGISTRY
ED Entered STN: 28 Mar 2003
CN 1,10-Decanediamine, N,N'-bis(1-heptyl-1H-imidazol-2-yl)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN NSC 610052
MF C30 H56 N6
SR Chemical Library



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 4 OF 9 REGISTRY COPYRIGHT 2006 ACS on STN
RN 385166-18-8 REGISTRY
ED Entered STN: 18 Jun 2002
CN 1H-Isoindole-1,3(2H)-dione, 2,2'-[1,8-octanediylbis(1H-1,2,4-triazole-5,3-diyl-2,1-ethanediyl)]bis- (9CI) (CA INDEX NAME)
MF C32 H34 N8 O4
SR Chemical Library
Supplier: Asinex
LC STN Files: CHEMCATS

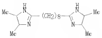


PAGE 1-A

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

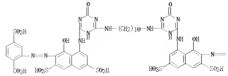
L6 ANSWER 5 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
RN 334785-11-4 REGISTRY
ED Entered STN: 07 May 2001
CN 1H-Imidazole, 2,2'-(1,8-octanediyl)bis[4,5-dihydro-4,5-dimethyl- (CA INDEX NAME)
MF C18 H34 N4
CI COM
SR CA



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 6 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
RN 278613-55-1 REGISTRY
ED Entered STN: 19 Jul 2000
CN Benzoic acid, 2,2'-[1,10-decanediylbis[imino(1,6-dihydro-6-oxo-1,3,5-triazine-4,2-diyl)imino(8-hydroxy-3,6-disulfo-1,7-naphthalenediyl)azo]]bis[4-sulfo- (9CI) (CA INDEX NAME)
MF C50 H48 N14 O26 S6
CI COM
SR CA

PAGE 1-A

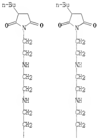


PAGE 1-B

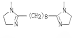
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 7 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
RN 104352-06-9 REGISTRY
ED Entered STN: 27 Sep 1986
CN 2,5-Pyrrolidinedione, 1,1'-[1,8-octanediylbis[(4,5-dihydro-1H-imidazole-2,1-diyl)-2,1-ethanediylimino-2,1-ethanediylimino-2,1-ethanediyl]]bis[3-butyl- (9CI) (CA INDEX NAME)
MF C42 H76 N10 O4
CI COM
SR CAOLD

PAGE 1-A

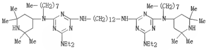


PAGE 2-A



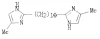
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 ANSWER 8 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
RN 71981-39-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,12-dodecanediylbis[N',N'-diethyl-N''-octyl-N''-(2,2,6,6-tetramethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)
MF C60 H116 N14
CI COM



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 ANSWER 9 OF 9 REGISTRY COPYRIGHT 2006 ACS on STN
RN 64059-59-1 REGISTRY
ED Entered STN: 16 Nov 1984
CN 1H-Imidazole, 2,2'-(1,10-decanediyl)bis[4-methyl-, dihydrochloride (9CI)
CA INDEX NAME)
MF C18 H34 N4 . 2 Cl H
LC STN Files: RTECS*
(*File contains numerically searchable property data)
CRN (782596-77-1)



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FILE LAST UPDATED: 20 Jun 2008  (20080620/ED)

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L8          216 L7 AND PY<2004

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              0 ANTIMALAR#
             13 TRYPANO#
              0 ANTITRYPANO#
L9            1 L8 AND (PARASIT# OR ANTIPARASIT# OR MALARI# OR ANTIMALAR# OR
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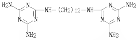
L9 ANSWER 1 OF 1 CAPLUS
AN 2001:680366 CAPLUS
DN 135:366327
TI Synthesis and Biological Evaluation of s-Triazine Substituted Polyamines as Potential New Anti-Trypanosomal Drugs
AU Klenke, Burkhard; Stewart, Mhairi; Barrett, Michael P.; Brun, Reto; Gilbert, Ian H.
CS Welsh School of Pharmacy, Cardiff University, Cardiff, CF10 3XF, UK
SO Journal of Medicinal Chemistry (2001), 44(21), 3440-3452
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
OS CASREACT 135:366327
AB The P2 transporter is a nucleoside transporter which is unique to the protozoan parasite Trypanosoma brucei, the causative organism of Human African Trypanosomiasis. The transporter has been shown to bind some structural motifs not recognized by other transporters. In this paper we describe the use of the melamine motif, a substrate of the P2 transporter, as a potential tool to selectively deliver polyamine analogs to the parasites. The synthesis of a number of polyamine analogs attached to a variety of melamine analogs is described. Many of the compds. were shown to competitively inhibit uptake of adenosine, indicating that they are recognized by the transporter. Some of the compds. showed good in vitro activity against the parasites.
IT 61912-28-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and structure activity relationships of s-triazine substituted polyamines as antitrypanosomal drugs)
RN 61912-28-5 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,12-dodecanediylbis- (9CI) (CA INDEX NAME)



RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L10           7 L8 AND PHARMACOLOGY/SC

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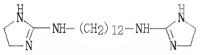
L10 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:170732 CAPLUS
DN 137:179375
TI I2-Imidazoline Binding Site Affinity of a Structurally Different Type of Ligands
AU Dardonville, Christophe; Rozas, Isabel; Callado, Luis F.; Meana, J. Javier
CS Instituto de Quimica Medica (CSIC), Madrid, 28006, Spain
SO Bioorganic & Medicinal Chemistry (2002), 10(5), 1525-1533
CODEN: BMECEP; ISSN: 0968-0896
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 137:179375
AB Two families of compds. with affinity towards the I2 imidazoline binding sites are reported. The first is a family of compds. structurally related to agmatine with two guanidine or 2-aminoimidazoline groups at each end of an aliphatic chain of six, eight, nine or 12 methylene groups. Second, and following the model of clonidine, we propose another family of compds. also with two guanidine or 2-aminoimidazoline groups at each end of a chain consisting of two Ph rings connected by groups such as CH2, CO, NH and SO2. The affinity of the compds. towards the I2 imidazoline binding sites was then evaluated in human brain tissues. In order to determine their pharmacol. selectivity vs. α2-adrenoceptors, the affinity for these receptors was also evaluated for the compds. with the highest affinities at I2 imidazoline binding sites. The results obtained show that many of the compds. exhibit a considerable affinity towards the I2 imidazoline binding sites. The aliphatic derivs., in particular, present a very interesting selectivity for the I2 imidazoline binding sites vs. the α2 adrenoceptors. To better understand these findings, mono-guanidinium analogs of the aliphatic derivs. were synthesized and tested showing poor affinity for I2 imidazoline binding sites. The importance of these results lies in the novelty of the chemical structures studied (dicationic aliphatic compds. particularly) because they are significantly different to those of the I2 imidazoline binding site ligands reported to date.
IT 141951-28-2P 450381-78-9P 450381-79-0P
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(I2-imidazoline binding site affinity of a structurally different type of ligands)
RN 141951-28-2 CAPLUS
CN 1,12-Dodecanediamine, N1,N12-bis(4,5-dihydro-1H-imidazol-2-yl)- (CA INDEX NAME)



RN 450381-78-9 CAPLUS
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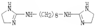
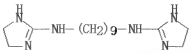
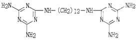


L10 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
RN 450381-79-0 CAPLUS
CN 1,9-Nonanediamine, N1,N9-bis(4,5-dihydro-1H-imidazol-2-yl)- (CA INDEX NAME)



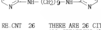
RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:680366 CAPLUS
DN 135:366327
TI Synthesis and Biological Evaluation of s-Triazine Substituted Polyamines as Potential New Anti-Trypanosomal Drugs
AU Klenke, Burkhard; Stewart, Mhairi; Barrett, Michael P.; Brun, Reto; Gilbert, Ian H.
CS Welsh School of Pharmacy, Cardiff University, Cardiff, CF10 3XF, UK
SO Journal of Medicinal Chemistry (2001), 44(21), 3440-3452
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
OS CASREACT 135:366327
AB The P2 transporter is a nucleoside transporter which is unique to the protozoan parasite Trypanosoma brucei, the causative organism of Human African Trypanosomiasis. The transporter has been shown to bind some structural motifs not recognized by other transporters. In this paper we describe the use of the melamine motif, a substrate of the P2 transporter, as a potential tool to selectively deliver polyamine analogs to the parasites. The synthesis of a number of polyamine analogs attached to a variety of melamine analogs is described. Many of the compds. were shown to competitively inhibit uptake of adenosine, indicating that they are recognized by the transporter. Some of the compds. showed good in vitro activity against the parasites.
IT 61912-28-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and structure activity relationships of s-triazine substituted polyamines as antitrypanosomal drugs)
RN 61912-28-5 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,12-dodecanediylbis- (9CI) (CA INDEX NAME)



RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:698862 CAPLUS
DN 134:51097
TI Aminohexanoic hydroxamate is a potent inducer of the differentiation of mouse neuroblastoma cells
AU Lu, J.; Chen, Z. P.; Yan, Y. P.; Knapp, S.; Schugar, H.; Chen, K. Y.
CS Department of Chemistry, Rutgers University, The State University of New Jersey, Piscataway, NJ, 08854-8087, USA
SO Cancer Letters (Shannon, Ireland) (2000), 160(1), 59-66
CODEN: CALEDQ; ISSN: 0304-3835
PB Elsevier Science Ireland Ltd.
DT Journal
LA English
AB Deoxyhypusine synthase is the key enzyme for modifying a lysine residue to hypusine in the cellular protein eukaryotic initiation factor 5A (eIF-5A). Deletion of the deoxyhypusine synthase or the eIF-5A gene in yeast produces lethal phenotype. Inhibition of deoxyhypusine synthase by 1-guanidino-7-aminoheptane (GC7) suppresses tumor cell growth. Hypusine formation represents one of the most specific polyamine-dependent biochem. reactions. In view of the importance of polyamines in growth regulation and cancer biol., deoxyhypusine synthase has been considered to be a good target for chemotherapeutic drug design. Using GC7 as a prototype the authors have synthesized and tested three classes of diamine analogs, namely, guanidino-, pyrimidino-, and hydroxamate derivs., as potential inhibitors for deoxyhypusine synthase. Our study shows that (i) among all the compds. tested, GC7 remained to be the most potent inhibitor for deoxyhypusine synthase; (ii) N,N'-bispyrimidino-1,9-diaminononane, although a poor inhibitor of deoxyhypusine synthase, was a potent growth inhibitor; and (iii) one of the hydroxamate derivs., 6-aminohexanoic hydroxamate (HC6), prominently induced the differentiation of mouse neuroblastoma cells at sub-millimolar concns. Interestingly, other hydroxamates with different chain length were not nearly as effective as HC6 in inducing neuroblastoma cell differentiation. The effect of HC6 was also unique in that it could induce neurite outgrowth and the expression of neuron-specific genes such as synapsin I and MAP-2 in neuroblastoma cells in the absence of other promoting agents such as cAMP. The effect of HC6 on neuroblastoma cell differentiation was comparable with, or better than that of N6,O2'-dibutyryl cAMP (Bt2cAMP), a standard reagent commonly used for inducing the differentiation of mouse and human neuroblastoma cells in culture.
IT 313950-34-4
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(aminohexanoic hydroxamate is a potent inducer of differentiation of mouse neuroblastoma cells and inhibitory effects of diamines and their derivs. on deoxyhypusine synthase and neuroblastoma growth)
RN 313950-34-4 CAPLUS
CN 1,9-Nonanediamine, N,N'-di-2-pyrimidinyl- (9CI) (CA INDEX NAME)

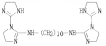


RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1998:146702 CAPLUS
DN 128:201049
OREF 128:39619a,39622a
TI Substituted imidazolinyl imidazolines as antagonists of SH2 binding, and therapeutic uses thereof
IN Decker, Stuart James; Fry, David William; Hamby, James Marino; Saltiel, Alan Robert
PA Warner-Lambert Co., USA
SO U.S., 14 pp., Cont.-in-part of U.S. Ser. No. 68,863, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

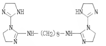
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 5721266	A	19980224	US 1994-312253	19940926	<--
PRAI	US 1993-68863	B2	19930528			

AB Methods of treating proliferative and other diseases are disclosed. Imidazolinyl imidazoline derivs., and pharmaceutical compns. employing them, are disclosed for use in antagonizing the association of a protein tyrosine kinase with a substrate regulatory protein.
IT 57314-26-8 204059-69-8 204059-70-1
204059-71-2 204059-72-3 204059-73-4
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(imidazolinyl imidazoline derivs. as antagonists of SH2 binding and therapeutic uses thereof)
RN 57314-26-8 CAPLUS
CN 1,10-Decanediamine, N,N'-bis(4,4',5,5'-tetrahydro[1,2'-bi-1H-imidazol]-2-yl)-, dihydriodide (9CI) (CA INDEX NAME)



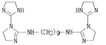
●2 HI

RN 204059-69-8 CAPLUS
CN 1,8-Octanediamine, N,N'-bis(4,4',5,5'-tetrahydro[1,2'-bi-1H-imidazol]-2-yl)- (9CI) (CA INDEX NAME)

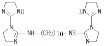


RN 204059-70-1 CAPLUS

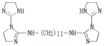
L10 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
CN 1,9-Nonanediamine, N,N'-bis(4,4',5,5'-tetrahydro[1,2'-bi-1H-imidazol]-2-yl)- (9CI) (CA INDEX NAME)



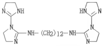
RN 204059-71-2 CAPLUS
CN 1,10-Decanediamine, N,N'-bis(4,4',5,5'-tetrahydro[1,2'-bi-1H-imidazol]-2-yl)- (9CI) (CA INDEX NAME)



RN 204059-72-3 CAPLUS
CN 1,11-Undecanediamine, N,N'-bis(4,4',5,5'-tetrahydro[1,2'-bi-1H-imidazol]-2-yl)- (9CI) (CA INDEX NAME)

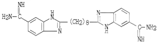


RN 204059-73-4 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4,4',5,5'-tetrahydro[1,2'-bi-1H-imidazol]-2-yl)- (9CI) (CA INDEX NAME)

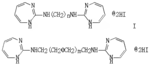


RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1994:45240 CAPLUS
DN 120:45240
OREF 120:8059a,8062a
TI Activity of cationically substituted bis-benzimidazoles against experimental Pneumocystis carinii pneumonia
AU Tidwell, R. R.; Jones, S. K.; Naiman, N. A.; Berger, L. C.; Brake, W. B.; Dykstra, C. C.; Hall, J. E.
CS Sch. Med., Univ. North Carolina, Chapel Hill, NC, 27599, USA
SO Antimicrobial Agents and Chemotherapy (1993), 37(8), 1713-16
CODEN: AMACCQ; ISSN: 0066-4804
DT Journal
LA English
AB On the basis of a previously observed correlation between the antimicrobial activity and DNA binding strength of dicationic mols., a series of 10 dicationically substituted bis-benzimidazoles were tested for activity in the rat model of Pneumocystis carinii pneumonia. One of the compds., 1,4-bis[5-(2-imidazolinyl)-2-benzimidazolyl]butane, was found to be more potent and less toxic than pentamidine.
IT 75846-16-1
RL: BIOL (Biological study)
(Pneumocystis carinii pneumonia treatment with)
RN 75846-16-1 CAPLUS
CN 1H-Benzimidazole-5-carboximidamide, 2,2'-(1,8-octanediyl)bis- (9CI) (CA INDEX NAME)



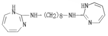
L10 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1983:179 CAPLUS
DN 98:179
OREF 98:31a,34a
TI Effect of polymethylene- and poly(oxyethylene)bis(2-amino-1,3-diazepine) iodides on cellular and model membranes
AU Bogatskii, A. V.; Luk'yanenko, N. G.; Savenko, T. A.; Vongai, V. G.; Nazarov, E. I.; Kirichenko, T. I.; Afanaseva, T. A.
CS Physicochem. Inst., Odessa, USSR
SO Byulleten Eksperimental'noi Biologii i Meditsiny (1982), 94(8), 52-4
CODEN: BEBMAE; ISSN: 0365-9615
DT Journal
LA Russian
GI



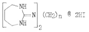
I

II

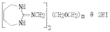
AB The effects of 4 polymethylene- and 3 poly(oxyethylene)bis(2-amino-1,3-diazepine) iodides I (n = 2, 4, 6, or 8) and II (m = 1, 2, or 3), resp., on neuromuscular transmission were studied in the end-plate of a frog neuromuscular preparation. End-plate potentials induced by sciatic nerve stimulation or by iontophoretically administered acetylcholine were inhibited by I and II. The inhibition of end-plate potentials by I was correlated with their effects on the surface potential of bilayer lipid membranes. Apparently, I may act by blocking the ion channel at the cholinergic receptor in the end-plate. Structure-activity relations are discussed.
IT 83524-55-4
RL: BIOL (Biological study)
(neuromuscular transmission response to, structure in relation to)
RN 83524-55-4 CAPLUS
CN 1,8-Octanediamine, N,N'-bis(1H-1,3-diazepin-2-yl)- (9CI) (CA INDEX NAME)



L10 ANSWER 7 OF 7 CAPLUS
AN 1982:555933 CAPLUS
DN 97:155933
OREF 97:25801a,25804a
TI Physiological activity of polymethylene- and polyoxyethylene-bis(2-amino-1,3-diazepinium) iodides
AU Bogatskii, A. V.; Luk'yanenko, N. G.; Savenko, T. A.; Oleshko, A. Ya.; Nazarov, E. I.; Kirichenko, T. I.; Afanas'eva, T. A.
CS Odess. Fiz.-Khim. Inst., Odessa, USSR
SO Farmakologiya i Toksikologiya (Moscow) (1982), 45(4), 24-7
CODEN: FATOAO; ISSN: 0014-8318
DT Journal
LA Russian
GI

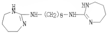


I



II

AB Seven bisquaternary compds. I (n = 2,4,6, or 8) and II (m = 1, 2, or 3) were tested for nicotinic and muscarinic, hypotensive, ganglion-blocking, and anticholinesterase activity and toxicity. The toxicity of I and II does not exceed that of analogous bisquaternary compds. such as benzohexonium. The ganglion-blocking and hypotensive activity of I (n = 8) was 1.5-2 times greater than that of benzohexonium. Structure-activity relations are discussed.
IT 82911-05-5
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmacol. of, structure in relation to)
RN 82911-05-5 CAPLUS
CN 1,8-Octanediamine, N,N'-bis(4,5,6,7-tetrahydro-1H-1,3-diazepin-2-yl)-, dihydriodide (9CI) (CA INDEX NAME)



●2 HI

L10 ANSWER 7 OF 7 CAPLUS (Continued)

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L3            450 S L1 FULL
L4            411 S L3 AND CAPLUS/LC
L5             39 S L3 NOT L4
L6              9 S L5 AND ED<07/18/2003

     FILE 'CAPLUS' ENTERED AT 18:41:28 ON 21 JUN 2008
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L10             7 S L8 AND PHARMACOLOGY/SC

=> s l8 not (l9 or l10)
L11         209 L8 NOT (L9 OR L10)

=> d l-209 bib abs hitstr
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L11 ANSWER 1 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:934860 CAPLUS
DN 141:157777
TI Thermoreactive bismaleimides containing 2-substitute benzimidazole units
AU Farion, Ivan Alexandrovich; Mognonov, Dmitry Markovich; Radnaeva, Larisa Dorzhievna
CS Lab. Synthetic and Nature Polymers, Baikal Inst. Nature Management at Russian Acad. Sci., Ulan-Ude, 670047, Russia
SO Materialy Yubileinoi Nauchno-Metodicheskoi Konferentsii "III Kirpichnikovskie Chteniya", Kazan, Russian Federation, Mar. 25-28, 2003 (2003), 316-318. Editor(s): Mukmeneva, N. A. Publisher: Kazanskii Gosudarstvennyi Tekhnologicheskii Universitet, Kazan, Russia.
CODEN: 69EUEJ; ISBN: 5-7882-0228-0
DT Conference
LA Russian
AB Thermoreactive bismaleimides have been obtained by the interaction of hexamethylene- and 4,4'-diphenylmethanebis(maleimides) with octamethylenebis(2-benzimidazole) in the melt. They are dissolved at room temperature in polar solvents. Structure and composition were confirmed by IR-spectroscopy and elemental anal. data. According to DTGA (heating rate 10 grad-min-1), oligomers melted at 120°, crosslinked at 190-225°, 5% weight loss was observed at 350-360° C.
IT 731779-54-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(oligomeric, thermoreactive bismaleimides containing 2-substitute benzimidazole units)
RN 731779-54-7 CAPLUS
CN 1H-Pyrrole-2,5-dione, 1,1'-(methylenedi-4,1-phenylene)bis-, polymer with 2,2'-(1,8-octanediyl)bis[1H-benzimidazole] (9CI) (CA INDEX NAME)

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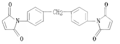
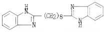
CRN 13676-54-5
CMF C21 H14 N2 O4



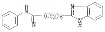
CM 2

CRN 5233-14-7
CMF C22 H26 N4

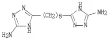


IT 5233-14-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(thermoreactive bismaleimides containing 2-substitute benzimidazole units)

L11 ANSWER 1 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)

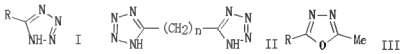


L11 ANSWER 2 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:586234 CAPLUS
DN 140:12045
TI Coordination Compounds of Copper(II) with Bis(5-amino-1,2,4-triazol-3-yl)alkanes
AU Barmin, M. I.; Chekrenev, S. A.; Kartavykh, V. P.; Mel'nikov, V. V.
CS St. Petersburg State University of Technology and Design, St. Petersburg, Russia
SO Russian Journal of General Chemistry (Translation of Zhurnal Obshchei Khimii) (2003), 73(3), 482-487
CODEN: RJGCEK; ISSN: 1070-3632
PB MAIK Nauka/Interperiodica Publishing
DT Journal
LA English
AB CuL(NO3)2 and CuL(H2O)2(NO3)2 (L = bis(5-amino-1,2,4-triazol-3-yl)alkanes) were prepared. The coordination polyhedron of Cu(II) has different configurations depending on the structure of the ligand and on the coordination mode.
IT 26092-44-4DP, 1,8-Bis(5-amino-1,2,4-triazol-3-yl)octane, copper complex
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal decomposition of)
RN 26092-44-4 CAPLUS
CN 1H-1,2,4-Triazol-3-amine, 5,5'-(1,8-octanediyl)bis- (9CI) (CA INDEX NAME)

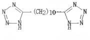


RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:190676 CAPLUS
DN 139:52904
TI Synthesis of new heterocyclic fatty compounds
AU Furmeier, Sandra; Metzger, Jurgen O.
CS Department of Chemistry, University of Oldenburg, Oldenburg, 26129, Germany
SO European Journal of Organic Chemistry (2003), (5), 885-893
CODEN: EJOCFK; ISSN: 1434-193X
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
OS CASREACT 139:52904
GI



AB The terminal tetrazoles I [R = Me(CH2)10, Me(CH2)16, (Z)-Me(CH2)7CH:CH(CH2)7, Me(CH2)12, CH2:CH(CH2)8], the tetrazole analogs of the most important naturally occurring fatty acids, have been synthesized from fatty nitriles RCN (same R) and completely characterized. The bis(tetrazole) II was prepared and represents a valuable supplement to the previously known C2-C5 alkyl- and alkenyl-linked bis(tetrazoles). The tetrazoles I were converted into the resp. 1,3,4-oxadiazoles III (same R) by heating in acetic anhydride. Three bis(oxadiazoles) were also obtained. A 1,5-disubstituted tetrazole was synthesized from Me 9(10)-oxooctadecanoate by means of an improved Schmidt reaction. From Me cis-9,10-epoxyoctadecanoate, various heterocycles such as 4,5-dihydrooxazoles, oxazolidines, imidazoles, oxazoles, and imidazolinethione were prepared. Because of their structural relationship to the naturally occurring prostaglandins, some of these heterocycles should be of interest as homoprostanoids.
IT 546113-27-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of tetrazole and other heterocyclic fatty acid derivs.)
RN 546113-27-3 CAPLUS
CN 1H-Tetrazole, 5,5'-(1,10-decanediyl)bis- (9CI) (CA INDEX NAME)



RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:58095 CAPLUS
DN 138:106832
TI Manufacture of dicyclic phosphorus melamine compounds for use as fire retardants
IN Lee, Dae Hee; Hyun, Dong Ho; Gwon, Su Han; Cho, Hyun Deok; Kim, Sang Bum
PA Doobon, Inc., S. Korea
SO PCT Int. Appl., 13 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 2003006472	A1	20030123	WO 2002-KR1308	20020711	<--
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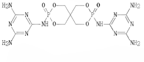
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
	KR 2003005934	A	20030123	KR 2001-41440	20010711	<--
	AU 2002354635	A1	20030129	AU 2002-354635	20020711	<--
	JP 2005500326	T	20050106	JP 2003-512242	20020711	
	US 20040236132	A1	20041125	US 2004-483272	20040701	
PRAI	KR 2001-41440	A	20010711			
	WO 2002-KR1308	W	20020711			

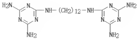
OS CASREACT 138:106832
GI



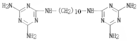
I

AB Dicyclic phosphorus-melamine compds. (e.g., I) was prepared by reacting pentaerythritol with phosphorus oxychloride, to synthesize pentaerythritol ester of phosphoro chloridic acid, which is then dissolved in water, to substitute the OH group for the Cl group in the ester, followed by the substituted ester with melamine or melamine derivative, to prepare the dicyclic phosphorus-melamine compound. Compound I has excellent flame retardancy properties, and is so used in combination with a polymer (e.g., when used with polypropylene, compound I achieves a UL-94 rating of V-0).
IT 61912-28-5 78326-99-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(manufacture of dicyclic phosphorus melamine compds. for use as fire retardants)
RN 61912-28-5 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,12-dodecanediylbis- (9CI) (CA INDEX NAME)

L11 ANSWER 4 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



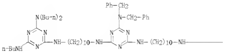
RN 78326-99-5 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,10-decanediylbis- (9CI) (CA INDEX NAME)



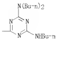
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:20468 CAPLUS
DN 138:187358
TI A Novel Type of Hydrogen-Bonded Assemblies Based on the Melamine Cyanuric Acid Motif
AU Arduini, Maria; Crego-Calama, Mercedes; Timmerman, Peter; Reinhoudt, David N.
CS Laboratory of Supramolecular Chemistry and Technology, MESA+ Research Institute, University of Twente, Enschede, 7500 AE, Neth.
SO Journal of Organic Chemistry (2003), 68(3), 1097-1106
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 138:187358
AB This paper reports the formation of novel hydrogen-bonded assemblies 13·CA obtained upon mixing cyanuric acid (CA) with melamine derivs. 1, in which two of the three possible H-bonding arrays have been blocked. The four components are held together by 9 hydrogen bonds and form a rigid planar structure in which a central CA (three ADA motifs: A = acceptor, D = donor) is hydrogen bonded to three peripheral melamine derivs. (DAD motif). Furthermore, the synthesis and assembly studies are described of hydrogen-bonded assemblies 2-4·CA, comprised of three melamine derivs. that are covalently connected, and CA. The overall thermodn. stability of assemblies 2-4·CA is superior to 13·CA (ITm = 9 vs 3.6). The presence of the 2·CA complex in chloroform was confirmed by 1H NMR spectroscopy and MALDI-TOF mass spectrometry. Substitution of the trimelamines with chiral or fluorescent groups (R3) enabled the study of the assemblies by CD and fluorescence spectroscopy. Titration expts. revealed strongly enhanced stabilities even in the presence of polar solvents, such as THF and CH3OH. Depending on the polarity of the solvent, stacking between the planar assembly units was observed.
IT 499213-16-0P
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(no H-bonding assembly formation; hydrogen-bonded assemblies based on the melamine cyanuric acid motif)
RN 499213-16-0 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N',N''-bis[10-[[4-(butylamino)-6-(dibutylamino)-1,3,5-triazin-2-yl]amino]decyl]-N,N-bis(phenylmethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



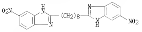
PAGE 1-B



L11 ANSWER 5 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

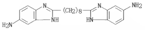
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:910545 CAPLUS
DN 138:221928
TI Preparation and characterization of new soluble benzimidazole-imide copolymers
AU Berrada, M.; Carriere, F.; Abboud, Y.; Abourriche, A.; Benamara, A.; Lajrhed, N.; Kabbaj, M.; Berrada, M.
CS Biosyntech Canada Inc., Laval, QC, H7V 4B3, Can
SO Journal of Materials Chemistry (2002), 12(12), 3551-3559
CODEN: JMACEP; ISSN: 0959-9428
PB Royal Society of Chemistry
DT Journal
LA English
AB The present necessity to use heat-resistant materials in electronics justifies the scientific interest in different heterocyclic polymers. Novel heat-resistant polyimides having bisbenzimidazole moieties in the main chain were prepared and their use as dielec. films was evaluated. A soluble copolyimide was prepared by a two-step synthesis from aromatic dianhydrides and aromatic diamines. The bisbenzimidazole diamine was prepared by reduction of the corresponding dinitro compound. The diamine was reacted with various aromatic dianhydrides to prepare a series of alternating benzimidazole-imide copolymers via the poly(amic acid) precursors and thermal or chemical imidization. Monomers and polymers were characterized by conventional methods and their phys. properties such as solution viscosity, solubility properties, thermal stability and thermal behavior were studied. All copolymers were obtained in high yields and had inherent viscosities ηinh that ranged from 0.60 to 0.98 dL g-1. Thin films of the copolymers were tough and flexible, having tensile strengths as high as 100 MPa. Glass transition temps. were observed between 275° and 328 °. Thermogravimetric analyses indicated that the thermal degradation of poly(benzimidazole-imide) occurs around 530°, which is ca. 80° higher than polyimide, confirming that the introduction of the bisbenzimidazole component improved the thermal stability of the polyimide.
IT 28742-73-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate, in synthesis of bisbenzimidazole diamine for preparation of soluble benzimidazole-imide copolymers)
RN 28742-73-6 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis[5-nitro- (9CI) (CA INDEX NAME)



IT 313508-76-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer, for preparation of soluble benzimidazole-imide copolymers)
RN 313508-76-8 CAPLUS
CN 1H-Benzimidazol-5-amine, 2,2'-(1,8-octanediyl)bis- (9CI) (CA INDEX NAME)

L11 ANSWER 6 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 7 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:534031 CAPLUS
DN 137:93597
TI Preparation and use of phenoxyalkylamino-linked dimers as sodium channel modulators
IN Marquess, Daniel; Choi, Seok-ki; Beattie, David T.; Griffin, John H.; Armstrong, Scott; Church, Timothy J.; Jenkins, Thomas E.
PA Advanced Medicine, Inc., USA
SO U.S., 121 pp., Cont.-in-part of U.S. Ser. No. 325,563, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 31

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 6420354	B1	20020716	US 1999-458107	19991208	<--
	CA 2318806	A1	19991216	CA 1999-2318806	19990607	<--
	CA 2319142	A1	19991216	CA 1999-2319142	19990607	<--
	CA 2319153	A1	19991216	CA 1999-2319153	19990607	<--
	WO 9963984	A1	19991216	WO 1999-US11801	19990607	<--
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	WO 9963932	A3	20000203			
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	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
	WO 9964045	A1	19991216	WO 1999-US12754	19990607	<--
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	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
	AU 9945511	A	19991230	AU 1999-45511	19990607	<--
	AU 9946726	A	19991230	AU 1999-46726	19990607	<--
	EP 1085879	A2	20010328	EP 1999-928442	19990607	<--
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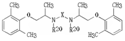
	EP 1089749	A1	20010411	EP 1999-928447	19990607	<--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
	JP 2002517437	T	20020618	JP 2000-553053	19990607	<--
	ZA 2000004562	A	20011130	ZA 2000-4562	20000831	<--
	ZA 2000004563	A	20011130	ZA 2000-4563	20000831	<--
	ZA 2000004564	A	20011130	ZA 2000-4564	20000831	<--
	US 6479498	B1	20021112	US 2001-39699	20011109	<--
	US 20030044845	A1	20030306	US 2002-75017	20020213	<--
PRAI	US 1998-88465P	P	19980608			

L11 ANSWER 7 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

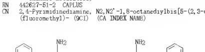
	US 1998-93068P	P	19980716
	US 1999-325563	B2	19990604
	US 1999-327096	B1	19990607
	WO 1999-US11801	W	19990607
	WO 1999-US12724	W	19990607
	WO 1999-US12754	W	19990607
	US 1999-458107	A1	19991208
	US 2000-499176	B1	20000207

OS MARPAT 137:93597
GI



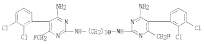
I

AB Title compds. I [R20 = H, Me, ethyl; X = linker X'-Z-(Y'-Z)m-Y''-Z-X', m = 0-20; X' = O, S, NR, CO, CO2, CONR, CS, CSO, CSNR, covalent bond; Z = alkylene, cycloalkylene, alkenylene, alkynylene, cycloalkenylene, arylene, heteroarylene, heterocyclene, covalent bond; Y', Y'' = carboxamide, amido, ureido, amidino, etc., covalent bond; R, R', R'' = H, alkyl, cycloalkyl, alkenyl, cycloalkenyl, alkynyl, aryl, heteroaryl, heterocyclic] were prepared as sodium channel modulators. For instance, 2,6-dimethylphenol was alkylated with chloroacetone (DMF, K2CO3, KI, 80°), the product reacted with 1,8-diamino-3,6-dioxaoctane (EtOH, 12 h, 25°) and the resulting imine reduced (NaBH4, 2 h, 25°) to give I [R20 = H; X = (CH2)2-O-(CH2)2-O-(CH2)2]. I are useful in the treatment of pain.
IT 442627-51-2P 442627-55-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug; preparation and use of phenoxyalkylamino-linked dimers as sodium channel modulators)
RN 442627-51-2 CAPLUS
CN 2,4-Pyrimidinediamine, N2,N2'-1,8-octanediylbis[5-(2,3-dichlorophenyl)-6-(fluoromethyl)- (9CI) (CA INDEX NAME)



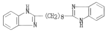
RN 442627-55-6 CAPLUS
CN 2,4-Pyrimidinediamine, N2,N2'-1,10-decanediylbis[5-(2,3-dichlorophenyl)-6-(fluoromethyl)- (9CI) (CA INDEX NAME)

L11 ANSWER 7 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RE.CNT 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 8 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:282820 CAPLUS
DN 137:63558
TI Poly(heteroarylenes) based on bis(maleimides) and 2,2'-bis(benzimidazoles) synthesized through dichlorohydrates of dicarboxylic acid bis(o-aminoanilides)
AU Farion, I. A.; Mognonov, D. M.; Radnaeva, L. D.; Doroshenko, Yu. E.
CS Buryat Institute of Natural Sciences, Russian Academy of Sciences, Buryat Republic, 670042, Russia
SO Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (2002), 44(3), 516-519
CODEN: VSSBEE; ISSN: 1023-3091
PB MAIK Nauka/Interperiodica Publishing
DT Journal
LA Russian
AB The condensation of isophthaloyl and sebacoyl dichlorides with 2 mol of o-phenylenediamine in CH_3COOH and the subsequent thermal cyclodehydration of the as-obtained bis(o-aminoanilide) dichlorohydrates at 250-400° C yielded 2,2'-bis(benzimidazoles). The migrational copolymn. of the latter compds. with the equimolar amount of 4,4'-diphenyl oxide-bis(maleimide) produced poly(heteroarylenes) with ηred = 0.4 (DMF, 20°C, 0.5 g/dL, an octamethylene residue in a chain). As evidenced by TGA, the temperature corresponding to the 10% weight loss falls in the 320-360°C range.
IT 5233-14-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(poly(heteroarylenes) based on bis(maleimides) and 2,2'-bis(benzimidazoles) synthesized through dichlorohydrates of dicarboxylic acid bis(o-aminoanilides))
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)

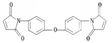


IT 439866-15-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(poly(heteroarylenes) based on bis(maleimides) and 2,2'-bis(benzimidazoles) synthesized through dichlorohydrates of dicarboxylic acid bis(o-aminoanilides))
RN 439866-15-6 CAPLUS
CN 1H-Pyrrole-2,5-dione, 1,1'-(oxydi-4,1-phenylene)bis-, polymer with 2,2'-(1,8-octanediyl)bis[1H-benzimidazole] (9CI) (CA INDEX NAME)

CM 1

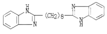
CRN 13132-94-0
CMF C20 H12 N2 O5

L11 ANSWER 8 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

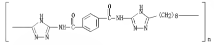


CM 2

CRN 5233-14-7
CMF C22 H26 N4



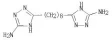
L11 ANSWER 9 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:730274 CAPLUS
DN 136:102335
TI Acylation of amino-1,2,4-triazoles
AU Barmin, M. I.; Kartavykh, V. P.; Korolev, E. A.; Tugai, I. D.; Grebenkin, A. N.; Mel'nikov, V. V.
CS St. Petersburg University of Engineering and Design, St. Petersburg, Russia
SO Russian Journal of General Chemistry (Translation of Zhurnal Obshchei Khimii) (2001), 71(4), 557-566
CODEN: RJGCEK; ISSN: 1070-3632
PB MAIK Nauka/Interperiodica Publishing
DT Journal
LA English
OS CASREACT 136:102335
AB A scheme of acylation of amino-1,2,4-triazoles under conditions of low-temperature polycondensation is proposed. The effect of reaction conditions on the yield and properties of reaction products is established.
IT 140219-20-1P 203523-46-0P 203523-47-1P
389056-16-0P 389056-23-9P 389056-30-8P
389125-76-2P 394737-81-6P 394738-09-1P
394738-39-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(oligomeric; preparation of oligomeric triazole-containing polyamides)
RN 140219-20-1 CAPLUS
CN Poly(1H-1,2,4-triazole-3,5-diyliminocarbonyl-1,4-phenylenecarbonylimino-1H-1,2,4-triazole-3,5-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)



RN 203523-46-0 CAPLUS
CN Ethanedioyl dichloride, polymer with 5,5'-(1,8-octanediyl)bis[1H-1,2,4-triazol-3-amine] (9CI) (CA INDEX NAME)

CM 1

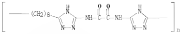
CRN 26092-44-4
CMF C12 H22 N8



CM 2

CRN 79-37-8
CMF C2 Cl2 O2

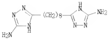
RN 203523-47-1 CAPLUS
CN Poly[1H-1,2,4-triazole-3,5-diylimino(1,2-dioxo-1,2-ethanediyl)imino-1H-1,2,4-triazole-3,5-diyl-1,8-octanediyl] (9CI) (CA INDEX NAME)



RN 389056-16-0 CAPLUS
CN Hexanedioyl dichloride, polymer with 5,5'-(1,8-octanediyl)bis[1H-1,2,4-triazol-3-amine] (9CI) (CA INDEX NAME)

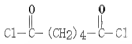
CM 1

CRN 26092-44-4
CMF C12 H22 N8



CM 2

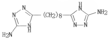
CRN 111-50-2
CMF C6 H8 Cl2 O2



RN 389056-23-9 CAPLUS
CN Decanedioyl dichloride, polymer with 5,5'-(1,8-octanediyl)bis[1H-1,2,4-triazol-3-amine] (9CI) (CA INDEX NAME)

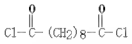
CM 1

CRN 26092-44-4
CMF C12 H22 N8



CM 2

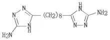
CRN 111-19-3
CMF C10 H16 Cl2 O2



RN 389056-30-8 CAPLUS
CN 1,4-Benzenedicarbonyl dichloride, polymer with 5,5'-(1,8-octanediyl)bis[1H-1,2,4-triazol-3-amine] (9CI) (CA INDEX NAME)

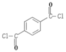
CM 1

CRN 26092-44-4
CMF C12 H22 N8



CM 2

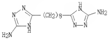
CRN 100-20-9
CMF C8 H4 Cl2 O2



RN 389125-76-2 CAPLUS
CN 2-Butenedioyl dichloride, (2E)-, polymer with 5,5'-(1,8-octanediyl)bis[1H-1,2,4-triazol-3-amine] (9CI) (CA INDEX NAME)

CM 1

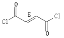
CRN 26092-44-4
CMF C12 H22 N8



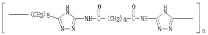
CM 2

CRN 627-63-4
CMF C4 H2 Cl2 O2

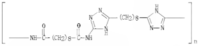
Double bond geometry as shown.



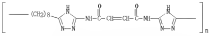
RN 394737-81-6 CAPLUS
CN Poly[1H-1,2,4-triazole-3,5-diylimino(1,6-dioxo-1,6-hexanediyl)imino-1H-1,2,4-triazole-3,5-diyl-1,8-octanediyl] (9CI) (CA INDEX NAME)



RN 394738-09-1 CAPLUS
CN Poly[1H-1,2,4-triazole-3,5-diyl-1,8-octanediyl-1H-1,2,4-triazole-3,5-diylimino(1,10-dioxo-1,10-decanediyl)imino] (9CI) (CA INDEX NAME)

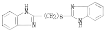


RN 394738-39-7 CAPLUS
CN Poly[1H-1,2,4-triazole-3,5-diylimino[(2E)-1,4-dioxo-2-butene-1,4-diyl]imino-1H-1,2,4-triazole-3,5-diyl-1,8-octanediyl] (9CI) (CA INDEX NAME)



RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

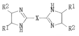
AN 2001:412854 CAPLUS
DN 136:37554
TI Synthesis of bis(2-benzimidazolyl)alkanes under microwave irradiation
AU Song, Lin-qing; Tan, Gan-zu; Xu, Xian-lun
CS Lanzhou Inst. Chemical Physics, Academia Sinica, Lanzhou, 730000, Peop. Rep. China
SO Hecheng Huaxue (2001), 9(2), 175-176
CODEN: HEHUE2; ISSN: 1005-1511
PB Hecheng Huaxue Bianjibu
DT Journal
LA Chinese
OS CASREACT 136:37554
AB Seven bis(2-benzimidazolyl)alkanes were synthesized under microwave irradiation. Compared with the conventional reaction, the reaction time was shorten sharply and the yield was comparable.
IT 5233-14-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of bisbenzimidazolylalkanes under microwave irradiation)
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)



AN 2001:269408 CAPLUS
DN 134:297251
TI Low-temperature curable epoxy-polyester powder coating compositions containing carboxylate salts of bisimidazolidines
IN Toyota, Takeshi; Murai, Takayuki; Yoshioka, Takashi
PA Shikoku Chemicals Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001106965	A	20010417	JP 1999-285729	19991006 <--
PRAI	JP 1999-285729		19991006		

OS MARPAT 134:297251
GI

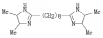


I

AB The composition comprises a epoxy resin, a polyester, and a carboxylate salts of bisimidazolidine I [X = (un)substituted C1-20 alicyclic or cyclic bivalent group; R1, R2 = H, alkyl or aryl]. Thus, Epikote 1004 (bisphenol A epoxy resin) 100 and ER 8101 (polyester) 76 parts were mixed with 5 parts 1,4-phenylenebis(2-imidazolylmethane) pyromellitate (1:1), ground, and coated, showing gel time at 140° 5'21" and gloss (60°) 65.
IT 334785-12-5
RL: CAT (Catalyst use); USES (Uses)
(low-temperature curable epoxy-polyester powder coating compns. containing carboxylate salts of bisimidazolidines)
RN 334785-12-5 CAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo-, compd. with 2,2'-(1,8-octanediyl)bis[4,5-dihydro-4,5-dimethyl-1H-imidazole] (1:1) (9CI) (CA INDEX NAME)

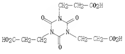
CM 1

CRN 334785-11-4
CMF C18 H34 N4



CM 2

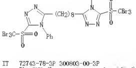
CRN 2904-41-8
CMF C12 H15 N3 O9



AN 2000:723389 CAPLUS
DN 133:303617
TI Heat development image-forming material suited for use in printing platemaking
IN Hirano, Shigeo; Takasaki, Suguru
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 46 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

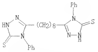
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000284406	A	20001013	JP 1999-87299	19990329 <--
	JP 3947632	B2	20070725		
PRAI	JP 1999-87299		19990329		

OS MARPAT 133:303617
AB The title image-forming material contains (a) a reducible Ag salt, (b) a reducing agent, (c) a binder, and (d) ≥1 polyhalo compound M(LkQY1CX1Z1Z2)n [Z1, Z2 = halo; X1 = H, electron-attracting group; Y1 = SO2, CO; Q = arylene, divalent heterocyclic group; L = divalent linking group; k = 0 or 1; M = group with n valences; n = 2-4; the plural (LkQY1CX1Z1Z2) groups are same or different, when n = 2, M may be single bond] on ≥1 of the same sides of a support. The material has little harmful influence on the human body and environment and shows low fog and stable photog. properties independent of heat development conditions.
IT 300802-93-1P
RL: DEV (Device component use); MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(heat-developable photog. material containing polyhalo compound as fog inhibitors)
RN 300802-93-1 CAPLUS
CN 4H-1,2,4-Triazole, 3,3'-(1,8-octanediyl)bis[4-phenyl-5-[(tribromomethyl)sulfonyl]- (CA INDEX NAME)

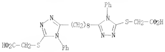


IT 72743-78-3P 300803-00-3P
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation of photog. fog inhibitor)
RN 72743-78-3 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5,5'-(1,8-octanediyl)bis[2,4-dihydro-4-phenyl- (CA INDEX NAME)

L11 ANSWER 12 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



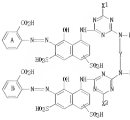
RN 300803-00-3 CAPLUS
CN Acetic acid, 2,2'-[1,8-octanediylbis[(4-phenyl-4H-1,2,4-triazole-5,3-diyl)thio]]bis- (9CI) (CA INDEX NAME)



L11 ANSWER 13 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:430057 CAPLUS
DN 133:75473
TI Ink jet printing magenta inks
IN Sano, Hideo; Yamada, Masahiro
PA Mitsubishi Chemical Industries Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000178463	A	20000627	JP 1998-357193	19981216 <--
PRAI	JP 1998-357193		19981216		

OS MARPAT 133:75473
GI



I

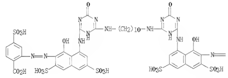
AB Inks contain dyes (I), where rings A and B are (un)substituted Ph groups, R1, R2 = H or organic groups, X1, X2 = OR3 or Cl, R3 = H, C1-8 alkyl, C2-3 alkenyl, aryl, aralkyl, cyclohexyl, or N heterocyclics, Y = (un)substituted C2-18 alkylenes. Thus, an ink contained I (tetra-Na salt), where R1, R2 = H, X1, X2 = OH, Y = ethylene.
IT 278613-56-2P 278613-57-3P 278613-63-1P
278613-65-3P 278613-70-0P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(ink jet printing magenta inks containing azo dyes)
RN 278613-56-2 CAPLUS
CN Benzoic acid, 2,2'-[1,10-decanediylbis[imino(1,6-dihydro-6-oxo-1,3,5-triazine-4,2-diyl)imino(8-hydroxy-3,6-disulfo-1,7-naphthalenediyl)azo]]bis[4-sulfo-, compd. with ethanamine (1:6) (9CI) (CA INDEX NAME)

CM 1

CRN 278613-55-1
CMF C50 H48 N14 O26 S6

L11 ANSWER 13 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

CM 2

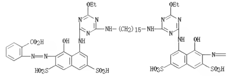
CRN 75-04-7
CMF C2 H7 N

$H_3C-CH_2-NH_2$

RN 278613-57-3 CAPLUS
CN Benzoic acid, 2,2'-[1,15-pentadecanediylbis[imino(6-ethoxy-1,3,5-triazine-4,2-diyl)imino(8-hydroxy-3,6-disulfo-1,7-naphthalenediyl)azo]]bis-, tetraammonium salt (9CI) (CA INDEX NAME)

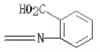
L11 ANSWER 13 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



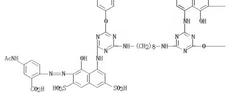
●4 NH_3

PAGE 1-B



RN 278613-63-1 CAPLUS
CN Benzoic acid, 2,2'-[1,8-octanediylbis[imino[6-(4-pyridinyloxy)-1,3,5-triazine-4,2-diyl]imino(8-hydroxy-3,6-disulfo-1,7-naphthalenediyl)azo]]bis[5-(acetylamino)-, tetrasodium salt (9CI) (CA INDEX NAME)

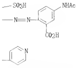
PAGE 1-A



●4 Na

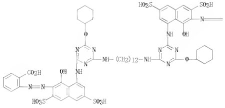
L11 ANSWER 13 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B



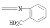
RN 278613-65-3 CAPLUS
CN Benzoic acid, 2,2'-[1,12-dodecanediylbis[imino[6-(cyclohexyloxy)-1,3,5-triazine-4,2-diyl]imino(8-hydroxy-3,6-disulfo-1,7-naphthalenediyl)azo]]bis-, tetrapotassium salt (9CI) (CA INDEX NAME)

PAGE 1-A



●4 K

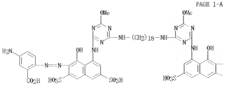
PAGE 1-B



RN 278613-70-0 CAPLUS
CN Benzoic acid, 2,2'-[1,18-octadecanediylbis[imino(6-methoxy-1,3,5-triazine-4,2-diyl)imino(8-hydroxy-3,6-disulfo-1,7-naphthalenediyl)azo]]bis[5-amino-

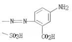
L11 ANSWER 13 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
, tetralithium salt (9CI) (CA INDEX NAME)

PAGE 1-A

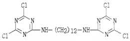


●4 Li

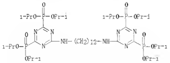
PAGE 1-B



L11 ANSWER 14 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:269285 CAPLUS
DN 133:17540
TI Dynamic NMR studies of phosphorylated diamine-coupled bis-1,3,5-triazines
AU Kreher, T.; Costisella, B.; Kirschke, K.; Bartoszek, M.; Quaiser, S.; Fischer, M.
CS Institut fur Angewandte Chemie Berlin-Adlershof, Berlin, D-12484, Germany
SO Phosphorus, Sulfur and Silicon and the Related Elements (1998), 141, 135-146
CODEN: PSSLEC; ISSN: 1042-6507
PB Gordon & Breach Science Publishers
DT Journal
LA German
OS CASREACT 133:17540
AB Sixteen different N,N'-bis[(dialkylphosphono)-1,3,5-triazin-2-yl]diamines were obtained in 30-91% yields by Arbuzov reaction of bis(4,6-dichloro-1,3,5-triazin-2-yl)diamines and trialkyl phosphites P(OR)3 (R = Me, Et, CHMe2). Unexpectedly, at room temperature only two of four P atoms are magnetically equivalent, as shown by 13C and 31P NMR studies.
IT 273212-24-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(Arbuzov reaction of bis(dichlorotriazinyl)diamines with trialkyl phosphites)
RN 273212-24-1 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4,6-dichloro-1,3,5-triazin-2-yl)- (9CI) (CA INDEX NAME)



IT 273212-12-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and dynamic NMR studies of phosphonylated diamine-coupled bistriazines)
RN 273212-12-7 CAPLUS
CN Phosphonic acid, [1,12-dodecanediylbis(imino-1,3,5-triazine-6,2,4-triyl)]tetrakis-, octakis(1-methylethyl) ester (9CI) (CA INDEX NAME)

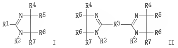


RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

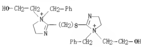
L11 ANSWER 15 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:216218 CAPLUS
DN 132:268524
TI Corrosion inhibitor containing imidazolium compound for pickling of metals
IN Sasaki, Hiroshi; Okahara, Haruo; Fujiwara, Kazushi
PA Asahi Chemical Co., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000096272	A	20000404	JP 1999-190930	19990705 <--
	JP 3207183	B2	20010910		
PRAI	JP 1998-209838	A	19980724		

OS MARPAT 132:268524
GI



AB A corrosion inhibitor for pickling of metals consists of ≥1 imidazolium compound obtained by quaternization of imidazoline compds. [I and II; R1 is C1-20 alkyl, C6-20 aryl, benzyl, heterocyclic group, or C9-20 condensated polycyclic group; R2 is H, hydroxyethyl, benzyl, or C1-20 alkyl; R3 is alkylene represented by CnH2n (n is 1-20); R4-R7 is H, C1-20 alkyl] with a quaternization agent., e.g., benzyl chloride or diethylsulfuric acid. The quaternization agent is preferably benzyl chloride or diethylsulfuric acid.
IT 172202-01-6P
RL: PNU (Preparation, unclassified); PREP (Preparation)
(corrosion inhibitor containing imidazolium compound for pickling of metals)
RN 172202-01-6 CAPLUS
CN 1H-Imidazolium, 2,2'-(1,8-octanediyl)bis[4,5-dihydro-1-(2-hydroxyethyl)-1-(phenylmethyl)-, dichloride (9CI) (CA INDEX NAME)

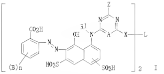


●2 Cl⁻

AN 2000:191162 CAPLUS
DN 132:238494
TI Preparation of dyes for jet printing inks
IN Wight, Paul
PA Avecia Ltd., UK
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE	
PI	WO 2000015723	A2	20000323	WO 1999-GB3025	19990913	<--
	WO 2000015723	A3	20000525			
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
	AU 9958737	A1	20000403	AU 1999-58737	19990913	<--
	EP 1114106	A2	20010711	EP 1999-946320	19990913	<--
	EP 1114106	B1	20041117			
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
	JP 2002524649	T	20020806	JP 2000-570254	19990913	<--
	AT 282673	T	20041215	AT 1999-946320	19990913	
	US 6610132	B1	20030826	US 2001-787285	20010301	<--
PRAI	GB 1998-20176	A	19980916			
	WO 1999-GB3025	W	19990913			

OS MARPAT 132:238494
GI

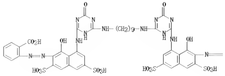


I

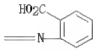
AB The title compns. comprise (a) a liquid medium comprising (i), (ii) or (iii): (i) a mixture of water and an organic solvent; (ii) an organic solvent free from water, or (iii) a low m.p. solid, and (b) a dye I or a salt thereof: wherein A is N, CCl, C-CN or C-NO2; B is a substituent other than -COOH; L is optionally interrupted alkylene, optionally substituted by halo or -OH, wherein the optional interruption(s) are selected from -O-, -S-, -NR'-, -CR'=CR1-, -C(O)- and -C(O)O-, Z is -SR2, -OR3, -NR4R5 or a labile

 (Continued)
atom or group, X is -S-, -O- or -NR1-, R1 is H or optionally substituted alkyl, R2, R3, R4 and R5 are each H, optionally substituted alkyl, optionally substituted aryl or optionally substituted aralkyl, or R4 and R5 together with the nitrogen to which they are attached form an optionally substituted five or six membered ring, and n is 0 to 4
IT 261733-94-2P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of dyes for jet printing inks)
RN 261733-94-2 CAPLUS
CN Benzoic acid, 2,2'-[1,9-nonanediylbis[imino(1,6-dihydro-6-oxo-1,3,5-triazine-4,2-diyl)imino(8-hydroxy-3,6-disulfo-1,7-naphthalenediyl)azo]]bis- (9CI) (CA INDEX NAME)

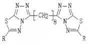
PAGE 1-A



PAGE 1-B

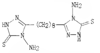


AN 2000:92425 CAPLUS
DN 132:293709
TI Synthesis of new series of 1,8-bis(4-amino-5-mercapto-1,2,4-triazol-3-yl)octanes and their derivatives
AU Kudari, S. M.; Badiger, Sangamesh B.
CS Department of Chemistry, Gulbarga University, Gulbarga, 585 106, India
SO Indian Journal of Heterocyclic Chemistry (1999), 9(2), 99-102
CODEN: IJCHEI; ISSN: 0971-1627
PB Prof. R. S. Varma
DT Journal
LA English
GI



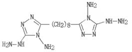
I

AB 1,8-Bis(4-amino-5-mercapto-1,2,4-triazol-3-yl)octane on reacting with hydrazine hydrate/chloroacetic acid and sodium acetate/benzoin and alc. potassium hydroxide/various substituted benzoic acids and phosphorous oxychloride/isothiocyanates and EDAC afforded 1,8-bis(4-amino-5-hydrazino-1,2,4-triazol-3-yl)octane, 1,8-bis(1,2,4-triazol[4,5-b]thiadiazin-6[7H]-on-3-yl)octane, 1,8-bis(1,2,4-triazol[4,5-b]thiadiazol-6-[5H]thion-3-yl)octane, 1,8-bis(1,2,4-triazol-6-aryl substituted [4,5-b]-1,3,4-thiadiazol-3-yl)octanes I (R = 2-ClC6H4, 2-HOC6H4, 4-O2NC6H4, etc.) and 1,8-bis(6-arylamino-1,2,4-triazol[4,5-b]-1,3,4-thiadiazol-3-yl)octanes I (R = NHPh, 4-ClC6H4NH), resp. The structures of the newly synthesized compds. have been characterized by IR, NMR and elemental anal.
IT 264232-15-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of bis(aminomercaptotriazolyl)octanes and derivs.)
RN 264232-15-7 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5,5'-(1,8-octanediyl)bis[4-amino-2,4-dihydro- (CA INDEX NAME)

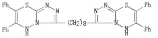


IT 202189-28-4P 264232-16-8P 264232-17-9P
264232-18-0P 264232-19-1P 264232-20-4P
264232-21-5P 264232-22-6P 264232-23-7P
264232-24-8P 264232-25-9P 264232-26-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of bis(aminomercaptotriazolyl)octanes and derivs.)
RN 202189-28-4 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 5,5'-(1,8-octanediyl)bis[4-amino-2,4-dihydro-, dihydrazone (9CI) (CA INDEX NAME)

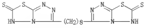
 (Continued)



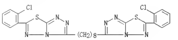
RN 264232-16-8 CAPLUS
CN 5H-1,2,4-Triazolo[3,4-b][1,3,4]thiadiazine, 3,3'-(1,8-octanediyl)bis[6,7-diphenyl- (CA INDEX NAME)



RN 264232-17-9 CAPLUS
CN 1,2,4-Triazolo[3,4-b][1,3,4]thiadiazole-6-thione, 3,3'-(1,8-octanediyl)bis- (9CI) (CA INDEX NAME)



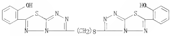
RN 264232-18-0 CAPLUS
CN 1,2,4-Triazolo[3,4-b][1,3,4]thiadiazole, 3,3'-(1,8-octanediyl)bis[6-(2-chlorophenyl)- (CA INDEX NAME)



RN 264232-19-1 CAPLUS
CN 1,2,4-Triazolo[3,4-b][1,3,4]thiadiazole, 3,3'-(1,8-octanediyl)bis[6-(4-chlorophenyl)- (CA INDEX NAME)

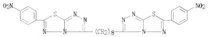
RN 264232-20-4 CAPLUS
CN Phenol, 2,2'-(1,8-octanediyldi-1,2,4-triazolo[3,4-b][1,3,4]thiadiazole-3,6-diyl)bis- (9CI) (CA INDEX NAME)

L11 ANSWER 17 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

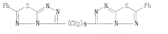


RN 264232-21-5 CAPLUS
CN Phenol, 4,4'-(1,8-octanediyldi-1,2,4-triazolo[3,4-b][1,3,4]thiadiazole-3,6-diyl)bis- (9CI) (CA INDEX NAME)

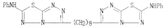
RN 264232-22-6 CAPLUS
CN 1,2,4-Triazolo[3,4-b][1,3,4]thiadiazole, 3,3'-(1,8-octanediyl)bis[6-(4-nitrophenyl)- (CA INDEX NAME)



RN 264232-23-7 CAPLUS
CN 1,2,4-Triazolo[3,4-b][1,3,4]thiadiazole, 3,3'-(1,8-octanediyl)bis[6-phenyl- (CA INDEX NAME)



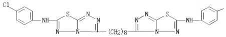
RN 264232-24-8 CAPLUS
CN 1,2,4-Triazolo[3,4-b][1,3,4]thiadiazol-6-amine, 3,3'-(1,8-octanediyl)bis[N-phenyl- (CA INDEX NAME)



RN 264232-25-9 CAPLUS
CN 1,2,4-Triazolo[3,4-b][1,3,4]thiadiazol-6-amine, 3,3'-(1,8-octanediyl)bis[N-(4-chlorophenyl)- (CA INDEX NAME)

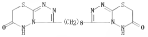
L11 ANSWER 17 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



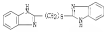
PAGE 1-B

RN 264232-26-0 CAPLUS
CN 5H-1,2,4-Triazolo[3,4-b][1,3,4]thiadiazin-6(7H)-one, 3,3'-(1,8-octanediyl)bis- (CA INDEX NAME)



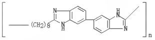
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 18 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:58004 CAPLUS
DN 132:195047
TI Silver(I) Ion Induced Reverse U-Shape Monolayers of Poly[methylenebis(benzimidazoles)] at the Air/Water Interface
AU Liu, Minghua; Cai, Junfang
CS Laboratory of Colloid and Interface Science Center for Molecular Science Institute of Chemistry, The Chinese Academy of Sciences, Beijing, 100080, Peop. Rep. China
SO Langmuir (2000), 16(6), 2899-2901
CODEN: LANGD5; ISSN: 0743-7463
PB American Chemical Society
DT Journal
LA English
AB The monolayer behaviors at the air/water interface of a series of bolaamphiphiles, poly[methylenebis(benzimidazoles)] with the number of methylene groups running from 0 to 8, are investigated. It has been found that the monolayer formation can be induced by the presence of Ag(I) ion in the subphases, while no monolayer could form on plain water surface. It has been further shown that when the number of the methylene groups between the benzimidazole moieties is equal to or larger than 6, reverse U-shape monolayers can be formed. The six-methylene group is the shortest length so far reported for bolaamphiphiles to bend to form the reverse U-shape monolayer at the air/water interface.
IT 5233-14-7D, polymeric complexes with silver ion
RL: PRP (Properties)
(silver(I) ion-induced reverse U-shape monolayers of poly[methylenebis(benzimidazoles)] at the air/water interface)
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)

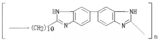


RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 19 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1999:222285 CAPLUS
DN 130:325438
TI Ru(0) complex catalyzed polyaddition. New synthesis of poly(alkylenebenzoxazole) and poly(alkylenebenzimidazole)
AU Yamaguchi, Isao; Osakada, Kohtaro; Yamamoto, Takakazu
CS Research Laboratory Resources Utilization, Tokyo Institute Technology, Yokohama, 226, Japan
SO Polymer Bulletin (Berlin) (1999), 42(2), 141-147
CODEN: POBUDR; ISSN: 0170-0839
PB Springer-Verlag
DT Journal
LA English
AB The reactions of α,ω-diyne, HC.tplbond.C(CH2)mC.tplbond.CH (m = 6 and 8), with 3,3'-diaminobenzidine and with 3,3'-diamino-4,4'-dihydroxybiphenyl in the presence of Ru3(CO)12-PPh3 catalyst give the corresponding poly(alkylenebenzoxazole)s and poly(alkylenebenzimidazole)s, resp. The former polymers obtained from the equimolar reaction of the monomers are partly soluble in polar organic solvents such as DMF, DMSO, and NMP, while the poly(benzimidazole)s are soluble in these solvents. GPC measurement shows the mol. wts. of the polymers, Mn of 4.8-14.1+103 and Mw of 6.4-19.7+103.
IT 25035-65-8P 99166-49-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of poly(alkylenebenzoxazole) and poly(alkylenebenzimidazole) by ruthenium-catalyzed polyaddn. of diynes with diamino compds.)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



RN 99166-49-1 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,10-decanediyl) (9CI) (CA INDEX NAME)

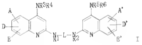


RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 20 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1999:130391 CAPLUS
DN 130:196662
TI 2,2'-Bridged bis-2,4-diaminoquinazolines as apamine-sensitive potassium channel blockers
IN Schohe-Loop, Rudolf; Seidel, Peter-Rudolf; Bullock, William; Hubsch, Walter; Feurer, Achim; Lerchen, Hans-Georg; Terstappen, Georg; Schuhmacher, Joachim; Vander, Staay Franz-Josef; Schmidt, Bernard; Fanelli, Richard J.; Chisholm, Jane C.; Mccarthy, Richard T.
PA Bayer Aktiengesellschaft, Germany
SO U.S., 16 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5874438	A	19990223	US 1996-729128	19961011 <--
PRAI	US 1996-729128		19961011		

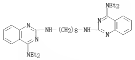
OS MARPAT 130:196662
GI



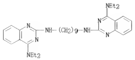
I

AB Title compds. I [A, A', D, D', E, E' = H, halogen, OH, NO2, CF3, OCF3, alkyl, alkoxy; L = (un)substituted ≤20C alkylene, oxaalkylene, azaalkylene, thiaalkylene; R1, R2 = H, (un)substituted Ph, alkyl; R1NLNR2 = (un)substituted 5-8-membered heterocycle; R3-R6 = H, (un)substituted Ph, alkyl; NR3R4, NR5R6 = heterocyclic] were prepared for use as apamine-sensitive potassium channel blockers in treatment of dementia, depression, myotonic dystrophy, or asthma. Thus, 2,4-dichloroquinazoline was monoaminated and treated with 1,5-diazocane to give 1,5-bis(4-diethylaminoquinazolin-2-yl)-1,5-diazocane which had a Ki for inhibition of binding of apamine to bovine cerebral membrane of 340 nM/L.
IT 220747-38-6P 220747-39-7P 220747-40-0P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of bridged bis-2,4-diaminoquinazolines as apamine-sensitive potassium channel blockers)
RN 220747-38-6 CAPLUS
CN 2,4-Quinazolinediamine, N2,N2'-1,8-octanediylbis[N4,N4-diethyl- (9CI) (CA INDEX NAME)

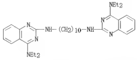
L11 ANSWER 20 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 220747-39-7 CAPLUS
CN 2,4-Quinazolinediamine, N2,N2'-1,9-nonanediylbis[N4,N4-diethyl- (9CI) (CA INDEX NAME)

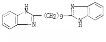


RN 220747-40-0 CAPLUS
CN 2,4-Quinazolinediamine, N2,N2'-1,10-decanediylbis[N4,N4-diethyl- (9CI) (CA INDEX NAME)

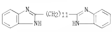


RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 21 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1998:803581 CAPLUS
DN 130:88033
TI Complex formation between symmetrical thiacyanine dyes and aromatic heterocycles evidence for molecular recognition
AU Bruce, Amanda Coreen; Chadha, Monica; Marks, Angela Farrah; Sahyun, M. R. V.; Hill, Susan E.
CS Department of Chemistry, University of Wisconsin - Eau Claire, Eau Claire, WI, 54702, USA
SO Journal of Photochemistry and Photobiology, A: Chemistry (1998), 119(3), 191-203
CODEN: JPPCEJ; ISSN: 1010-6030
PB Elsevier Science S.A.
DT Journal
LA English
AB Complexes between three thiacarbocyanine dyes and imidazole, Im, benzimidazole, Bz, and 2-methylbenzimidazole, 2-MeBz, have been detected by perturbation of the dyes' fluorescence. In some cases 1 : 2, as well as 1 : 1 complexes, can be observed. This assignment has been confirmed by time-resolved laser flash spectroscopy, detected by transient absorption spectroscopy. Based on a preconception of complex geometry, the authors selected a series of α,ω-bis(2-benzimidazolyl)alkanes of chain length n, as complexing agents which we anticipated might exhibit mol. recognition towards the cyanine chromophores. A modicum of mol. recognition was indeed observed when (n-4) matched the number of carbon atoms in the polymethine chain of the dye. Computational chemical studies using the Merck mol. force field and AM1 semi-empirical MO calcn. were carried out to elucidate complex structure. Geometry of the Im and Bz complexes turned out to be quite different. The calculated geometry of the latter complexes turned out to be incompatible with the anticipated basis for mol. recognition. The computational studies suggested the basis for dye-complexing agent interaction in the ground state to be principally electrostatic, i.e., with little or no dispersion or charge transfer contributions.
IT 157324-49-7 218784-36-2
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(mol. recognition of bis(benzimidazolyl)alkanes towards complexation with sym. thiacyanine dyes)
RN 157324-49-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,9-nonanediyl)bis- (CA INDEX NAME)



RN 218784-36-2 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,11-undecanediyl)bis- (CA INDEX NAME)



RE.CNT 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 22 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1998:585783 CAPLUS
DN 129:262030
OREF 129:53369a,53372a
TI Fabric softeners giving no slimy feel
IN Imata, Hiroshi; Imai, Hirohito; Fujiwara, Masami
PA Lion Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10237761	A	19980908	JP 1997-37446	19970221 <--
PRAI	JP 1997-37446		19970221		

OS MARPAT 129:262030
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title softeners contain salts (including quaternary) of I, II, III, and IV, wherein R1 = C9-35 alkyl, alkenyl with or without ether O, A = O, NR2; R2 = H, C1-6 alkyl, hydroxyalkyl, m = 0-10, n, p, q = 2-3. I (n = 2, m = 4, A = NH; R1 = C17H35) hydrochloride was used for cotton towels and acrylic fabrics.
IT 7516-99-6D, stearoylamidoalkyl and stearoyloxyalkyl derivs., hydrochloride salts 213604-17-2D, stearoylamidoalkyl derivs., hydrochloride salts and tallow alkyl derivs.
RL: NUU (Other use, unclassified); USES (Uses)
(fabric softeners giving no slimy feel)
RN 7516-99-6 CAPLUS
CN 1H-Imidazole, 2,2'-(1,8-octanediyl)bis[4,5-dihydro- (CA INDEX NAME)

RN 213604-17-2 CAPLUS
CN Pyrimidine, 2,2'-(1,8-octanediyl)bis[1,4,5,6-tetrahydro- (CA INDEX NAME)

L11 ANSWER 23 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1998:550415 CAPLUS
DN 129:177027
OREF 129:35947a,35950a
TI Bleed reduction agents for ink jet printing inks
IN Kenyon, Ronald Wynford; Mistry, Prahalad Manibhai; Lavery, Aidan Joseph
PA Zeneca Limited, UK
SO PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 9834926	A1	19980813	WO 1998-GB121	19980115	<--

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

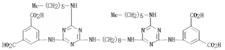
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
	AU 9855696	A	19980826	AU 1998-55696	19980115	<--
	EP 966451	A1	19991229	EP 1998-900607	19980115	<--

R: CH, DE, FR, GB, LI

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
	JP 2001517209	T	20011002	JP 1998-533936	19980115	<--
	US 6254669	B1	20010703	US 1999-355846	19990805	<--
PRAI	GB 1997-2354	A	19970205			
	WO 1998-GB121	W	19980115			

OS MARPAT 129:177027
AB The compound ArJX[WLW1X1]mJ1Ar1 and salts thereof [Ar, Ar1 = aromatic group where one of Ar and Ar1 contains CO2H; J, J1 = O, S, NR1, etc.; R1 = H, alkyl; X, X1 = (substituted) triazine residues; W, W1 = O, S, NR5; R5 = H, alkyl; L = divalent linking group; m = 0-2] are useful as additives in inks, especially ink jet printing inks, for reducing color bleed between adjacent printed regions. Also claimed are inks containing a compound of formula (1), a method of ink jet printing using the inks, a substrate printed with the ink and an ink jet printer cartridge containing the ink. A typical bleed reduction agent comprised 2,4-bis(3,5-dicarboxyphenylamino)-6-chlorotriazine.
IT 211625-38-6P
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(bleed reduction agents for ink jet printing inks)
RN 211625-38-6 CAPLUS
CN 1,3-Benzenedicarboxylic acid, 5,5'-[1,8-octanediylbis[imino[6-(hexylamino)-1,3,5-triazine-4,2-diyl]imino]]bis-, tetraammonium salt (9CI) (CA INDEX NAME)

L11 ANSWER 23 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



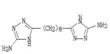
● 4 NH_3

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 24 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1998:136414 CAPLUS
DN 128:192982
OREF 128:38133a,38136a
TI Synthesis of oligooxamides from 3,3'-bis(5-amino-1,2,4-triazolyl)alkanes
AU Barmin, M. I.; Shemyakin, A. I.; Gromova, S. A.; Grebenkin, A. N.; Mel'nikov, V. V.
CS St. Petersburg. Gos. Univ. Tekhnol. Dizaina, St. Petersburg, Russia
SO Zhurnal Prikladnoi Khimii (Sankt-Peterburg) (1997), 70(11), 1881-1884
CODEN: ZPKHAB; ISSN: 0044-4618
PB Nauka
DT Journal
LA Russian
AB Nonequil. polycondensation of 3,3'-bis(5-amino-1,2,4-triazolyl)alkanes with oxalyl dichloride in gas-liquid system yielded oligoamides characterized by IR spectroscopy and elemental anal. Effect of reaction conditions on the overall oligomer yield and factors leading to oligoamide low mol. wts. were studied. Specific viscosity, some phys. and chemical characteristics of oligooxamides as well as their fungitoxicity are determined.
IT 203523-46-0P 203523-47-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of oligooxamides from 3,3'-bis(5-amino-1,2,4-triazolyl)alkanes)
RN 203523-46-0 CAPLUS
CN Ethanedioyl dichloride, polymer with 5,5'-(1,8-octanediyl)bis[1H-1,2,4-triazol-3-amine] (9CI) (CA INDEX NAME)

CM 1

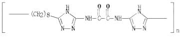
CRN 26092-44-4
CMF C12 H22 N8



CM 2

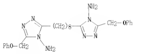
CRN 79-37-8
CMF C2 Cl2 O2

RN 203523-47-1 CAPLUS
CN Poly[1H-1,2,4-triazole-3,5-diylimino(1,2-dioxo-1,2-ethanediyl)imino-1H-1,2,4-triazole-3,5-diyl-1,8-octanediyl] (9CI) (CA INDEX NAME)

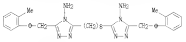


L11 ANSWER 24 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

AN 1998:125272 CAPLUS
DN 128:192601
OREF 128:38051a,38054a
TI Synthesis of a new series of 1,8-bis(5-aryloxymethyl-1,3,4-oxadiazol-2-yl)octanes and 1,8-bis(5-aryloxymethyl-4-amino/anilino-1,2,4-triazol-2-yl)octanes
AU Kudari, S. M.; Badiger, Sangamesh E.
CS Department of Studies in Chemistry, Gulbarga University, Gulbarga, 585 106, India
SO Oriental Journal of Chemistry (1997), 13(3), 245-248
CODEN: OJCHEG; ISSN: 0970-020X
PB Oriental Scientific Publishing Co.
DT Journal
LA English
AB 1,8-Bis(5-aryloxymethyl-1,3,4-oxadiazol-2-yl)octanes were obtained by the reaction of sebacic acid dihydrazide with various substituted aryloxyacetic acids. 1,8-Bis(5-aryloxymethyl-4-amino/anilino-1,2,4-triazolyl-3-yl)octanes and their derivs. were obtained by the reaction of 1,8-bis(5-aryloxymethyl-1,3,4-oxadiazol-2-yl)octanes with hydrazine hydrate/phenylhydrazine.
IT 203586-36-1P 203586-37-2P 203586-38-3P
203586-39-4P 203586-40-7P 203586-41-8P
203586-42-9P 203586-43-0P 203586-44-1P
203586-45-2P 203586-46-3P 203586-47-4P
203586-48-5P 203586-49-6P 203586-50-9P
203586-51-0P 203586-52-1P 203586-53-2P
203586-54-3P 203586-55-4P 203586-56-5P
203586-57-6P 203586-58-7P 203586-59-8P
203586-60-1P 203586-61-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 203586-36-1 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-(phenoxymethyl)- (CA INDEX NAME)

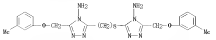


RN 203586-37-2 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(2-methylphenoxy)methyl]- (CA INDEX NAME)

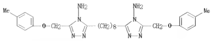


RN 203586-38-3 CAPLUS

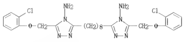
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(3-methylphenoxy)methyl]- (CA INDEX NAME)



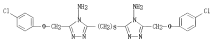
RN 203586-39-4 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(4-methylphenoxy)methyl]- (CA INDEX NAME)



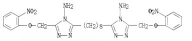
RN 203586-40-7 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(2-chlorophenoxy)methyl]- (CA INDEX NAME)



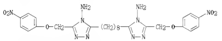
RN 203586-41-8 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(4-chlorophenoxy)methyl]- (CA INDEX NAME)



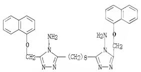
RN 203586-42-9 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(2-nitrophenoxy)methyl]- (CA INDEX NAME)



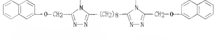
RN 203586-43-0 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(4-nitrophenoxy)methyl]- (CA INDEX NAME)



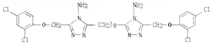
RN 203586-44-1 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(1-naphthalenyloxy)methyl]- (CA INDEX NAME)



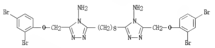
RN 203586-45-2 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(2-naphthalenyloxy)methyl]- (CA INDEX NAME)



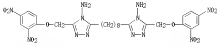
RN 203586-46-3 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(2,4-dichlorophenoxy)methyl]- (CA INDEX NAME)



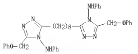
RN 203586-47-4 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(2,4-dibromophenoxy)methyl]- (CA INDEX NAME)



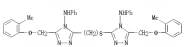
RN 203586-48-5 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(2,4-dinitrophenoxy)methyl]- (CA INDEX NAME)



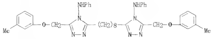
RN 203586-49-6 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-(phenoxymethyl)-N-phenyl- (CA INDEX NAME)



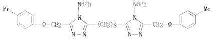
RN 203586-50-9 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(2-methylphenoxy)methyl]-N-phenyl- (CA INDEX NAME)



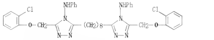
RN 203586-51-0 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(3-methylphenoxy)methyl]-N-phenyl- (CA INDEX NAME)



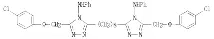
RN 203586-52-1 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(4-methylphenoxy)methyl]-N-phenyl- (CA INDEX NAME)



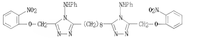
RN 203586-53-2 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(2-chlorophenoxy)methyl]-N-phenyl- (CA INDEX NAME)



RN 203586-54-3 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(4-chlorophenoxy)methyl]-N-phenyl- (CA INDEX NAME)

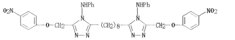


RN 203586-55-4 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(2-nitrophenoxy)methyl]-N-phenyl- (CA INDEX NAME)

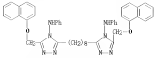


L11 ANSWER 25 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

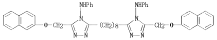
RN 203586-56-5 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(4-nitrophenoxy)methyl]-N-phenyl- (CA INDEX NAME)



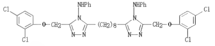
RN 203586-57-6 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(1-naphthalenyloxy)methyl]-N-phenyl- (CA INDEX NAME)



RN 203586-58-7 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(2-naphthalenyloxy)methyl]-N-phenyl- (CA INDEX NAME)

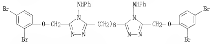


RN 203586-59-8 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(2,4-dichlorophenoxy)methyl]-N-phenyl- (CA INDEX NAME)

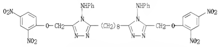


RN 203586-60-1 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(2,4-dibromophenoxy)methyl]-N-phenyl- (CA INDEX NAME)

L11 ANSWER 25 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

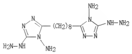


RN 203586-61-2 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-[(2,4-dinitrophenoxy)methyl]-N-phenyl- (CA INDEX NAME)

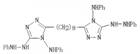


RE CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AN 1998:54181 CAPLUS
DN 128:140649
OREF 128:27671a,27674a
TI Synthesis of a new series of 1,8-bis(5-mercapto-1,3,4-oxadiazol-2-yl)octanes and their derivatives
AU Kudari, S. M.; Badiger, Sangamesh E.
CS Department of Chemistry, Gulbarga University, Gulbarga, 585 106, India
SO Indian Journal of Heterocyclic Chemistry (1997), 7(2), 135-138
CODEN: IJCHEI; ISSN: 0971-1627
PB Lucknow University, Dep. of Chemistry
DT Journal
LA English
AB 1,8-Bis(5-mercapto-1,3,4-oxadiazol-2-yl)octane (I) was synthesized by two routes. One of these involves the condensation of sebacic acid hydrazide with alc. KOH and CS_2. The other one involves the conversion of hydrazides into their K salts (K dithiocarbazinate), which, on treatment with alc. KOH gave I. The reactions of I with hydrazine hydrate/phenylhydrazine, primary amines, secondary amines and p-benzoquinone yielded compds. such as triazolyloctanes and oxadiazolyloctane derivs.
IT 202189-28-4P 202189-29-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of 1,8-bis(5-mercapto-1,3,4-oxadiazol-2-yl)octanes)
RN 202189-28-4 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 5,5'-(1,8-octanediyl)bis[4-amino-2,4-dihydro-, dihydrazone (9CI) (CA INDEX NAME)



RN 202189-29-5 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 5,5'-(1,8-octanediyl)bis[2,4-dihydro-4-(phenylamino)-, bis(phenylhydrazone) (9CI) (CA INDEX NAME)

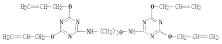


RE CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 27 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:683392 CAPLUS
DN 127:307779
OREF 127:60207a,60210a
TI Effect of multifunctional monomer on radiation crosslinking of polypropylene
AU Yang, Huili; Liu, Changhai; Xu, Jun
CS Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, 130022, Peop. Rep. China
SO Fushe Yanjiu Yu Fushe Gongyi Xuebao (1997), 15(2), 96-99
CODEN: FYYXLA; ISSN: 1000-3436
PB Fushe Yanjiu Yu Fushe Gongyi Xuebao Bianjibu
DT Journal
LA Chinese
AB A multifunctional monomer (PFM) N,N-bis(4,6-diallyloxy-triazinyl-2)-1,10-decanediamine was synthesized, and was identified by IR spectroscopy and element anal. Little smoke was observed when this PFM was kneaded with polypropylene (PP) on a two-roll mill, it did not ooze out to the sheet sample surface after a long storage time, and the crosslinking of PP by γ-irradiation was notably sensitized.
IT 197503-21-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(multifunctional monomer effect on radiation crosslinking of polypropylene)
RN 197503-21-2 CAPLUS
CN 1,10-Decanediamine, N,N'-bis[4,6-bis(2-propenyloxy)-1,3,5-triazin-2-yl]-, polymer with 1-propene (9CI) (CA INDEX NAME)

CM 1

CRN 197503-20-1
CMF C28 H42 N8 O4



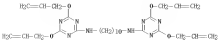
CM 2

CRN 115-07-1
CMF C3 H6

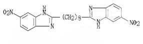
$H_3C-CH=CH_2$

IT 197503-20-1P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of multifunctional monomer for radiation crosslinking of polypropylene)
RN 197503-20-1 CAPLUS
CN 1,10-Decanediamine, N,N'-bis[4,6-bis(2-propenyloxy)-1,3,5-triazin-2-yl]- (9CI) (CA INDEX NAME)

L11 ANSWER 27 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



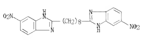
L11 ANSWER 28 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:564942 CAPLUS
DN 127:176789
OREF 127:34262h,34263a
TI Synthesis, Characterization, and Studies of Heat-Resistant Poly(ether benzimidazole)s
AU Berrada, M.; Anbaoui, Z.; Lajrhed, N.; Berrada, M.; Knouzi, N.; Vaultier, M.; Sekiguchi, H.; Carriere, F.
CS Laboratoire de Chimie Macromoleculaire, Universite Hassan II Faculte des Sciences II, Casablanca, Morocco
SO Chemistry of Materials (1997), 9(9), 1989-1993
CODEN: CMATEX; ISSN: 0897-4756
PB American Chemical Society
DT Journal
LA English
AB The present necessity to use heat-resistant materials in electronics justified the scientific interest in different heterocyclic polymers. The preparation and characterization of novel heat-resistant poly(ether benzimidazoles) are presented. The preparation of bis(nitrobenzimidazole) monomers is also presented. The poly(ether benzimidazoles) were prepared by the nucleophilic displacement reaction of 1,6-hexanediol with activated aromatic bis(nitrobenzimidazole) compds. in N-methylpyrrolidone at 190° in the presence of anhydrous potassium carbonate. All polybenzimidazoles were obtained in high-to-quant. yields and with varying mol. wts. (inherent viscosities 0.24-0.77 dL/g), which in some cases were in the fiber-forming range. The polymers exhibited glass transition temps. 150-300°.
IT 28742-73-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; preparation and characterization of polyether polybenzimidazoles)
RN 28742-73-6 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis[5-nitro- (9CI) (CA INDEX NAME)



IT 193900-56-0P 193900-57-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of polyether polybenzimidazoles)
RN 193900-56-0 CAPLUS
CN 1,6-Hexanediol, polymer with 2,2'-(1,8-octanediyl)bis[5-nitro-1H-benzimidazole] (9CI) (CA INDEX NAME)

CM 1

CRN 28742-73-6
CMF C22 H24 N6 O4

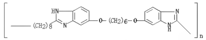


CM 2

L11 ANSWER 28 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
CRN 629-11-8
CMF C6 H14 O2

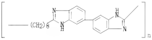
$HO-(CH_2)_6-OH$

RN 193900-57-1 CAPLUS
CN Poly(1H-benzimidazole-2,5-diyloxy-1,6-hexanediyloxy-1H-benzimidazole-5,2-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)

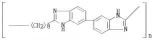


RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

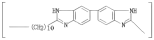
L11 ANSWER 29 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:429628 CAPLUS
DN 127:95702
OREF 127:18436h,18437a
TI Introduction of a Long Alkyl Side Chain to Poly(benzimidazole)s N-Alkylation of the Imidazole Ring and Synthesis of Novel Side Chain Polyrotaxanes
AU Yamaguchi, Isao; Osakada, Kohtaro; Yamamoto, Takakazu
CS Research Laboratory of Resources Utilization, Tokyo Institute of Technology, Yokohama, 226, Japan
SO Macromolecules (1997), 30(15), 4288-4294
CODEN: MAMOBX; ISSN: 0024-9297
PB American Chemical Society
DT Journal
LA English
AB NaH promoted deprotonation of the NH group in poly(benzimidazole)s, (-ImC6H4-)n (1a, Im = 5,5'-dibenzimidazole-2,2'-diyl), [-Im(CH2)8-]n (2a), and [{-Im(CH2)11O(CH2)11}0.91{Im(CH2)10-}0.09]n (3a) followed by addition of Br(CH2)12O(CO)CH2CPh3 causes substitution of the NH hydrogen of the parent polymer with the (CH2)12OCOCH2CPh3 group. The produced poly(benzimidazole) derivs., 1b, 2b, and 3b, resp., contain the N-alkylated imidazole group with a high content (85-91%) in the main chain and show high solubility in organic solvents. NMR spectra of 1b-3b reveal that 91, 91, and 85% of the resp. imidazole rings are N-alkylated. When the same reaction is carried out in the presence of trimethyl-β-cyclodextrin (TMe-β-CD), the reaction gives a new type of polymer (1c, 2c, and 3c, resp.), side chain polyrotaxanes. TMe-β-CD is incorporated in 21% and 57% of the side chains of 1c and 2c, while every side chain of 3c threads through two TMe-β-CDs. A GPC trace of 3c supports the formation of the polyrotaxane. Polyrotaxanes 1c-3c also show considerably higher solubility in organic solvents than the parent polymers 1a-3a.
IT 25035-65-8DP, alkylated with bromododecyl triphenylpropanoate, compound with tri-Me β-cyclodextrin
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(rotaxane; preparation of side-chain polyrotaxanes by alkylation of polybenzimidazoles in presence of long chain alkylating agent)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



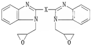
L11 ANSWER 30 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:294795 CAPLUS
DN 126:293681
OREF 126:56879a,56882a
TI Synthesis of polybenzimidazoles by ruthenium-catalyzed polycondensation of aromatic tetraamine and aliphatic dinitriles
AU Yoneyama, Masaru; Ohki, Masako
CS Department Biological Chemical Engineering, Faculty Engineering, Gunma University, Kiryu, 376, Japan
SO Kobunshi Ronbunshu (1997), 54(4), 224-228
CODEN: KBRBA3; ISSN: 0386-2186
PB Kobunshi Gakkai
DT Journal
LA Japanese
AB Novel ruthenium-catalyzed polycondensation of 3,3'-diaminobenzidine with aliphatic dinitriles was investigated. A variety of polybenzimidazoles having inherent viscosities between 0.10 and 0.21 dL/g could be readily prepared using RuCl2(PPh3)3 at 210° in NMP or DMAc in 24 h reaction.
IT 25035-65-8P, 3,3'-Diaminobenzidine-sebaconitrile copolymer, SRU
99166-49-1P, 3,3'-Diaminobenzidine-decanedinitrile copolymer, SRU
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of polybenzimidazoles by ruthenium-catalyzed polycondensation of aromatic tetraamine and aliphatic dinitriles)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



RN 99166-49-1 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,10-decanediyl) (9CI) (CA INDEX NAME)

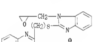


L11 ANSWER 31 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:135212 CAPLUS
DN 126:186025
OREF 126:35921a,35924a
TI Synthesis and properties of N-(2,3-epoxypropyl) derivatives of imidazoles, benzimidazoles, and bisbenzimidazoles
AU Korotkikh, N. I.; Shvaika, O. P.
CS Inst. Fiz. Org. Khim. Uglekhim. im. L.M.Litvinenko, Donetsk, 340114, Ukraine
SO Zhurnal Organicheskoi Khimii (1996), 32(7), 1076-1084
CODEN: ZORKAE; ISSN: 0514-7492
PB Nauka
DT Journal
LA Russian
OS CASREACT 126:186025
GI

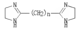


I

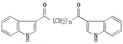
AB The title compds., e.g., I [X = (CH2)n, n = 2, 4, 8; (CH:CH)n, n = 1, 2; 1,4-C6H4, SCH2CH2S, etc.], were prepared by reaction of the azoles with 1-chloro-2,3-epoxypropane. An intramol. H-π interaction between a proton of the oxirane ring and the aromatic nucleus was discussed.
IT 187393-23-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 187393-23-3 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis[1-(oxiranylmethyl)- (9CI) (CA INDEX NAME)



L11 ANSWER 32 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1996:565852 CAPLUS
DN 125:300751
OREF 125:56287a,56290a
TI Synthesis of bisindoles from bisimidazolines
AU Bergman, Jan; Koch, Daniel
CS Dep. Organic Chem., Royal Inst. Tech., Stockholm, S-100 44, Swed.
SO Heterocyclic Communications (1996), 2(4), 305-308
CODEN: HCOMEX; ISSN: 0793-0283
PB Freund
DT Journal
LA English
GI

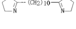


I

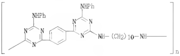


II

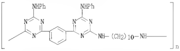
AB Diacetylimidazolinium ions, generated in situ from imidazolines I (n = 4, 10) and acetic anhydride, electrophilically attack indoles at position 3. This method has now been extended to reagents obtained from α,ω-alkylene linked bisimidazolines. The adducts isolated could readily be hydrolyzed to the corresponding bifunctional 3-acylindoles II.
IT 81066-74-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of bisindoles from bisimidazolines)
RN 81066-74-2 CAPLUS
CN 1H-Imidazole, 2,2'-(1,10-decanediyl)bis[4,5-dihydro- (CA INDEX NAME)



L11 ANSWER 33 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1996:9845 CAPLUS
DN 124:88003
OREF 124:16547a,16550a
TI Synthesis and properties of polyguanamines from bisguanamines and α,ω-dibromoalkanes by alkylation reaction
AU Yuki, Yasuo; Kunisada, Hideo; Iida, Kazuhiro; Kondo, Shuji
CS Dep. Materials Sci., Eng., Nagoya Inst. Tech., Nagoya, 466, Japan
SO Polymer Journal (Tokyo) (1995), 27(12), 1239-45
CODEN: POLJB8; ISSN: 0032-3896
PB Society of Polymer Science, Japan
DT Journal
LA English
AB Polyguanamines were prepared by reaction of bisguanamines with α,ω-dibromoalkanes in the presence of NaH. Polyguanamines with inherent viscosity 0.1-0.2 dL/g were obtained quant. They began to lose weight at approx. 400-480° in air. The use of the polyguanamines as phase-transfer catalysts for the reaction of 1-bromooctane with K thiocyanate in toluene-water also was investigated.
IT 172703-93-4P 172703-99-0P 172704-05-1P
172704-11-9P 172704-12-0P 172704-13-1P
172704-14-2P 172704-15-3P 172704-16-4P
172704-17-5P
RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation, characterization and properties of)
RN 172703-93-4 CAPLUS
CN Poly[[6-(phenylamino)-1,3,5-triazine-2,4-diyl]-1,4-phenylene[6-(phenylamino)-1,3,5-triazine-2,4-diyl]imino-1,10-decanediylimino] (9CI) (CA INDEX NAME)

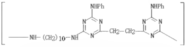


RN 172703-99-0 CAPLUS
CN Poly[[6-(phenylamino)-1,3,5-triazine-2,4-diyl]-1,3-phenylene[6-(phenylamino)-1,3,5-triazine-2,4-diyl]imino-1,10-decanediylimino] (9CI) (CA INDEX NAME)

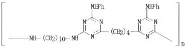


RN 172704-05-1 CAPLUS
CN Poly[[6-(phenylamino)-1,3,5-triazine-2,4-diyl]-1,2-ethanediyl[6-(phenylamino)-1,3,5-triazine-2,4-diyl]imino-1,10-decanediylimino] (9CI) (CA INDEX NAME)

L11 ANSWER 33 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



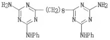
RN 172704-11-9 CAPLUS
CN Poly[[6-(phenylamino)-1,3,5-triazine-2,4-diyl]-1,4-butanediyl[6-(phenylamino)-1,3,5-triazine-2,4-diyl]imino-1,10-decanediylimino] (9CI) (CA INDEX NAME)



RN 172704-12-0 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,8-octanediyl)bis[N-phenyl-, polymer with 1,4-dibromobutane (9CI) (CA INDEX NAME)

CM 1

CRN 54641-37-1
CMF C26 H32 N10



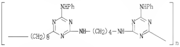
CM 2

CRN 110-52-1
CMF C4 H8 Br2

Br-$(CH_2)_4$-Br

RN 172704-13-1 CAPLUS
CN Poly[[6-(phenylamino)-1,3,5-triazine-2,4-diyl]imino-1,4-butanediylimino[6-(phenylamino)-1,3,5-triazine-2,4-diyl]-1,8-octanediyl] (9CI) (CA INDEX NAME)

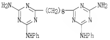
L11 ANSWER 33 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 172704-14-2 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,8-octanediyl)bis[N-phenyl-, polymer with 1,6-dibromohexane (9CI) (CA INDEX NAME)

CM 1

CRN 54641-37-1
CMF C26 H32 N10

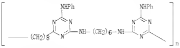


CM 2

CRN 629-03-8
CMF C6 H12 Br2

Br-$(CH_2)_6$-Br

RN 172704-15-3 CAPLUS
CN Poly[[6-(phenylamino)-1,3,5-triazine-2,4-diyl]imino-1,6-hexanediylimino[6-(phenylamino)-1,3,5-triazine-2,4-diyl]-1,8-octanediyl] (9CI) (CA INDEX NAME)

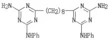


RN 172704-16-4 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,8-octanediyl)bis[N-phenyl-, polymer with 1,10-dibromodecane (9CI) (CA INDEX NAME)

CM 1

CRN 54641-37-1
CMF C26 H32 N10

L11 ANSWER 33 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

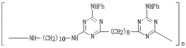


CM 2

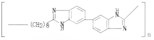
CRN 4101-68-2
CMF C10 H20 Br2

Br-$(CH_2)_{10}$-Br

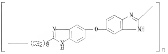
RN 172704-17-5 CAPLUS
CN Poly[[6-(phenylamino)-1,3,5-triazine-2,4-diyl]-1,8-octanediyl[6-(phenylamino)-1,3,5-triazine-2,4-diyl]imino-1,10-decanediylimino] (9CI) (CA INDEX NAME)



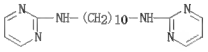
L11 ANSWER 34 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1995:716380 CAPLUS
DN 123:113600
OREF 123:20292h,20293a
TI Synthesis of polyalkylenebenzimidazole and their gas permeability
AU Zhang, Jian; Hou, Xiaohuai
CS Inst. Chem., Acad. Sinica, Beijing, 100080, Peop. Rep. China
SO Gaofenzi Xuebao (1995), (3), 278-83
CODEN: GAXUE9; ISSN: 1000-3304
PB Kexue
DT Journal
LA Chinese
AB A series of polyalkylenebenzimidazole was synthesized by solution polycondensation and polymeric membranes were cast from formic acid solution at low pressure and room temperature. The relationship between gas permselectivity and chemical structure of polyalkylenebenzimidazole was discussed. The permeability order of hydrogen, carbon dioxide, oxygen, nitrogen and methane is fit for ordinary glass polymers. The polymers that have longer flexible polymeric chain have higher gas permeability, but lower selectivity than the polymer that have shorter flexible chain. The gas permeability increased when a flexible group or segment was introduced into rigid chain. The gas permeability increased and the selectivity reduced when the temperature of transport gas increased.
IT 25035-65-8P 53202-18-9P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis of polyalkylenebenzimidazole membranes and their gas permeability)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



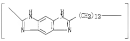
RN 53202-18-9 CAPLUS
CN Poly(1H-benzimidazole-2,5-diyloxy-1H-benzimidazole-5,2-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)



L11 ANSWER 35 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1995:352127 CAPLUS
DN 123:83169
OREF 123:14881a,14884a
TI Synthesis and Structure-Activity Relationships of Dequalinium Analogs as K+ Channel Blockers. Investigations on the Role of the Charged Heterocycle
AU Galanakis, Dimitrios; Davis, Carole A.; Herrero, Benedicto Del Rey; Ganellin, C. Robin; Dunn, Philip M.; Jenkinson, Donald H.
CS Department of Chemistry, University College London, London, WC1E 6BT, UK
SO Journal of Medicinal Chemistry (1995), 38(4), 595-606
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
OS CASREACT 123:83169
AB Small conductance Ca2+-activated K+ (SKCa) channels occur in many cells but have been relatively little studied. Dequalinium, a bisquinolinium compound, has recently been shown to be the most potent nonpeptidic blocker of this K+ channel subtype. This paper examines the importance of the quinolinium rings for blocking activity. Analogs of dequalinium were synthesized in which one quinolinium group was removed or replaced by a triethylammonium group. They have been assayed in vitro for their ability to block the after-hyperpolarization (mediated by the opening of SKCa channels) that follows the action potential in rat sympathetic neurons. The compound having one quinolinium and one triethylammonium group showed reduced activity, and it is suggested that the stronger binding to the channel of the quinolinium relative to the triethylammonium group may be related to differences in their electrostatic potential energy maps. Two monoquaternary compds. were tested, but they exhibited a different pharmacol. profile that did not allow definite conclusions to be drawn concerning their potency as blockers of the SKCa channel. Replacement of both quinolinium groups by pyridinium, acridinium, isoquinolinium, or benzimidazolium reduced but did not abolish activity. These results show that compds. having a number of different heterocyclic cations are capable of blocking the SKCa channel. However, among the heterocycles studied, quinoline is optimal. Furthermore, charge delocalization seems to be important: the higher the degree of delocalization the more potent the compound.
IT 165262-31-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of dequalinium and related compds. as K+ channel blockers)
RN 165262-31-7 CAPLUS
CN 1,10-Decanediamine, N,N'-di-2-pyrimidinyl- (9CI) (CA INDEX NAME)



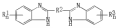
L11 ANSWER 36 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1995:337264 CAPLUS
DN 122:82216
OREF 122:15639a,15642a
TI Synthesis and Processing of Heterocyclic Polymers as Electronic, Optoelectronic, and Nonlinear Optical Materials. 4. New Conjugated Rigid-Rod Poly(benzobis(imidazole))s
AU Osaheni, John A.; Jenekhe, Samson A.
CS Department of Chemical Engineering, University of Rochester, Rochester, NY, 14627-0166, USA
SO Macromolecules (1995), 28(4), 1172-9
CODEN: MAMOBX; ISSN: 0024-9297
PB American Chemical Society
DT Journal
LA English
AB New conjugated rigid-rod poly(benzobis(imidazole))s incorporating varying lengths of trans-polyene segments and 1,4-phenylenebis(vinylene) linkages have been synthesized and characterized by IR, 1H NMR, and electronic absorption spectra. Thin films of the polymers were prepared from their soluble coordination complexes. The π-π* optical band gap of thin films of the new polymers was in the range 1.8-2.3 eV, which is smaller than the corresponding poly(benzobis(thiazole))s. In spite of the structural modifications which ensure strong interchain interactions in the new polymers, they still exhibit significant moisture sensitivity, absorbing equilibrium moisture of .apprx.6-9 wt % which is however smaller than the well-known poly(1,3-phenylenebibenzimidazole) (PBI) which absorbs .apprx.15 wt %. It is suggested that the moisture sensitivity of the poly(benzobis(imidazole))s is intrinsic to the N-H group and also partly explains the luminescence quenching in thin films. However, the poly(benzobis(imidazole))s are highly fluorescent in dilute solution.
IT 160566-04-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and band gap and nonlinear optical properties of)
RN 160566-04-1 CAPLUS
CN Poly[(1,5-dihydrobenzo[1,2-d:4,5-d']diimidazole-2,6-diyl)-1,12-dodecanediyl] (9CI) (CA INDEX NAME)



L11 ANSWER 37 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1995:4730 CAPLUS
DN 122:121070
OREF 122:22391a,22394a
TI Heat-resistant prefluxes for rust preventing and soldering in printed circuits
IN Yamaguchi, Hideaki
PA Japan
SO Jpn. Kokai Tokkyo Koho, 27 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

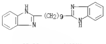
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05287562	A	19931102	JP 1992-129223	19920407 <--
PRAI	JP 1992-129223		19920407		

GI

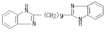


I

AB A solution for treating a printed circuit metal surface for rust prevention and solder fluxing contains methylbenzimidazole derivs. (I; R1, R3 = Me, R2 = 0, alkylene, C6H4, alkylphenylene; n = 0-3), organic and inorg. acids, carboxylic acids, halo-aromatic carboxylic acids, halo-fatty acids, and metal compds. The preflux solution gives the surface of metal circuit layers a formed film with increased rust prevention, heat resistance, solder wettability, and melted solder spreading.
IT 157324-49-7 157475-89-3 157475-90-6
RL: USES (Uses)
(heat-resistant preflux containing, for soldering metallic printed circuit layer, for rust prevention)
RN 157324-49-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,9-nonanediyl)bis- (CA INDEX NAME)



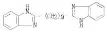
RN 157475-89-3 CAPLUS
CN 1H-Benzimidazole, 2-[9-(1H-benzimidazol-2-yl)nonyl]methyl- (9CI) (CA INDEX NAME)



D1—Me

RN 157475-90-6 CAPLUS

L11 ANSWER 37 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
CN 1H-Benzimidazole, dimethyl-2-[9-(methyl-1H-benzimidazol-2-yl)nonyl]- (9CI) (CA INDEX NAME)

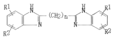


3 (D1-Me)

L11 ANSWER 38 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1994:643712 CAPLUS
DN 121:243712
OREF 121:44201a,44204a
TI Surface-treating agent containing alkylenedibenzimidazole compound for copper (alloy) of printed circuit
IN Okamoto, Toshihiro; Murai, Takayuki; Kikukawa, Yoshimasa; Hirao, Hirohiko; Yoshioka, Takashi
PA Shikoku Chem, Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

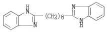
	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	JP 06173022	A	19940621	JP 1992-352506	19921209 <--
PRAI	JP 1992-352506		19921209		

OS MARPAT 121:243712
GI

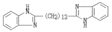


I

AB The surface-treating agent contains 2,2'-alkylenedibenzimidazole compound I (R1-2 = H, lower alkyl, halo; n = 1-20). The agent gave a stable and heat-resistant coating to the Cu surface.
IT 5233-14-7 158076-61-0
RL: USES (Uses)
(surface-treating agent, for copper (alloy) of printed circuit, heat-resistant coating from)
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)



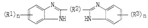
RN 158076-61-0 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,12-dodecanediyl)bis- (CA INDEX NAME)



L11 ANSWER 39 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1994:619327 CAPLUS
DN 121:219327
OREF 121:39671a,39674a
TI Manufacture of copper through-hole printed circuits
IN Yamaguchi, Hideaki
PA Japan
SO Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

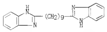
	PATENT NO	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05291729	A	19931105	JP 1992-129224	19920407 <--
PRAI	JP 1992-129224		19920407		

OS MARPAT 121:219327
GI



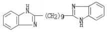
I

AB Manufacture of a printed circuit with Cu through-holes includes: (a) forming a neg. resist film that is soluble in alkaline aqueous solution on a Cu-clad laminate board by a printing or photog. method; (b) immersing the board in a solution containing ≥1 compound (I) or a salt of a derivative, where R1, R3 = Me (n = 0-3), R2 = 0, C≥1 alkanediyl, C6H4, or alkyl-substituted C6H4, to form an etching-resistant film of a Cu complex of I on the Cu cladding; (c) contacting with an alkaline aqueous solution to remove the neg. resist film; and (d) treating the Cu-clad laminate board with an alkaline etching solution.
IT 157324-49-7D, copper complex 157475-89-3D, copper complex 158102-49-9D, copper complex
RL: USES (Uses)
(etching resists, in manufacture of printed circuits)
RN 157324-49-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,9-nonanediyl)bis- (CA INDEX NAME)



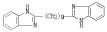
RN 157475-89-3 CAPLUS
CN 1H-Benzimidazole, 2-[9-(1H-benzimidazol-2-yl)nonyl]methyl- (9CI) (CA INDEX NAME)

L11 ANSWER 39 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



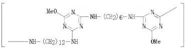
D1-Me

RN 158102-49-9 CAPLUS
CN 1H-Benzimidazole, 2-[9-(1H-benzimidazol-2-yl)nonyl]dimethyl- (9CI) (CA INDEX NAME)

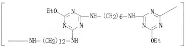


2 (D1-Me)

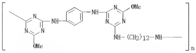
AN 1994:458128 CAPLUS
DN 121:58128
OREF 121:10497a,10500a
TI The synthesis and characterization of a new class of liquid crystalline polymers based on s-triazine
AU Fornasier, R.; Chapoy, L. L.
CS Ist. Guido Donegani, Novara, 28100, Italy
SO Liquid Crystals (1994), 16(6), 955-71
CODEN: LICRE6; ISSN: 0267-8292
DT Journal
LA English
AB The synthesis and characterization of a new class of liquid crystalline alternating copolymers based on a s-triazine rings, connected by flexible alkyldiamine spacers and other selected bridging groups is reported. The propensity of the system to demonstrate liquid crystallinity as a function of the bridging group is investigated. Unexpectedly, the homopolymer of the triazine ring connected by a flexible alkyldiamine spacer is also a liquid crystalline polymer. A new polymerization technique is reported in which the alkyldiamine serves the dual role of monomer and proton acceptor. These polymers form liquid crystalline glasses which are transparent and have good mech. properties. This suggests that they could be interesting materials to be further studied in the context of non-linear optics.
IT 126324-47-8P 126324-48-9P 126324-49-0P
126324-50-3P 126428-49-7P 126428-54-4P
126428-55-5P 156393-89-4P 156393-90-7P
156393-91-8P 156393-92-9P 156393-99-6P
156394-00-2P 156394-01-3P 156394-02-4P
156394-03-5P 156394-09-1P 156394-10-4P
156394-11-5P 156394-12-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(liquid crystalline, preparation and characterization of)
RN 126324-47-8 CAPLUS
CN Poly[(6-methoxy-1,3,5-triazine-2,4-diyl)imino-1,6-hexanediylimino(6-methoxy-1,3,5-triazine-2,4-diyl)imino-1,12-dodecanediylimino] (9CI) (CA INDEX NAME)



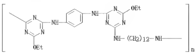
RN 126324-48-9 CAPLUS
CN Poly[(6-ethoxy-1,3,5-triazine-2,4-diyl)imino-1,6-hexanediylimino(6-ethoxy-1,3,5-triazine-2,4-diyl)imino-1,12-dodecanediylimino] (9CI) (CA INDEX NAME)



RN 126324-49-0 CAPLUS
CN Poly[(6-methoxy-1,3,5-triazine-2,4-diyl)imino-1,4-phenyleneimino(6-methoxy-1,3,5-triazine-2,4-diyl)imino-1,12-dodecanediylimino] (9CI) (CA INDEX NAME)



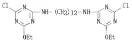
RN 126324-50-3 CAPLUS
CN Poly[(6-ethoxy-1,3,5-triazine-2,4-diyl)imino-1,4-phenyleneimino(6-ethoxy-1,3,5-triazine-2,4-diyl)imino-1,12-dodecanediylimino] (9CI) (CA INDEX NAME)



RN 126428-49-7 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4-chloro-6-ethoxy-1,3,5-triazin-2-yl)-, polymer with 1,12-dodecanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 126428-48-6
CMF C22 H36 Cl2 N8 O2



CM 2

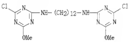
CRN 2783-17-7
CMF C12 H28 N2

$H_2N-(CH_2)_{12}-NH_2$

RN 126428-54-4 CAPLUS
CN 1,4-Benzenediamine, polymer with N,N'-bis(4-chloro-6-methoxy-1,3,5-triazin-2-yl)-1,12-dodecanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 121172-49-4
CMF C20 H32 Cl2 N8 O2



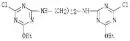
CM 2

CRN 106-50-3
CMF C6 H8 N2

RN 126428-55-5 CAPLUS
CN 1,4-Benzenediamine, polymer with N,N'-bis(4-chloro-6-ethoxy-1,3,5-triazin-2-yl)-1,12-dodecanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 126428-48-6
CMF C22 H36 Cl2 N8 O2



CM 2

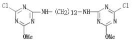
CRN 106-50-3
CMF C6 H8 N2

RN 156393-89-4 CAPLUS

CN 1,4-Benzenediol, polymer with N,N'-bis(4-chloro-6-methoxy-1,3,5-triazin-2-yl)-1,12-dodecanediamine (9CI) (CA INDEX NAME)

CM 1

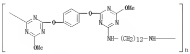
CRN 121172-49-4
CMF C20 H32 Cl2 N8 O2



CM 2

CRN 123-31-9
CMF C6 H6 O2

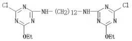
RN 156393-90-7 CAPLUS
CN Poly[(6-methoxy-1,3,5-triazine-2,4-diyl)oxy-1,4-phenyleneoxy(6-methoxy-1,3,5-triazine-2,4-diyl)imino-1,12-dodecanediylimino] (9CI) (CA INDEX NAME)



RN 156393-91-8 CAPLUS
CN 1,4-Benzenediol, polymer with N,N'-bis(4-chloro-6-ethoxy-1,3,5-triazin-2-yl)-1,12-dodecanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 126428-48-6
CMF C22 H36 Cl2 N8 O2



L11 ANSWER 40 OF 209 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

CM 2

CRN 123-31-9
CMF C6 H6 O2

RN 156590-92-9 CAPLUS
CN Poly[(6-ethoxy-1,3,5-triazine-2,4-diyl)oxy-1,4-phenyleneoxy(6-ethoxy-1,3,5-triazine-2,4-diyl)imino-1,12-dodecanediylimino] (9CI) (CA INDEX NAMES)

RN 156590-98-5 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4-chloro-6-methoxy-1,3,5-triazin-2-yl)-, polymer with piperazine (9CI) (CA INDEX NAMES)

CM 1

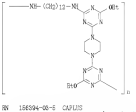
CRN 121172-49-4
CMF C20 H32 Cl2 N8 O2

CM 2

CRN 110-85-0
CMF C4 H10 N2

RN 156594-00-3 CAPLUS
CN Poly[(6-methoxy-1,3,5-triazine-2,4-diyl)-1,4-piperazinediyl(6-methoxy-

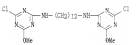
L11 ANSWER 40 OF 209 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 156594-02-5 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4-chloro-6-methoxy-1,3,5-triazin-2-yl)-, polymer with 1,12-dodecanediamine (9CI) (CA INDEX NAMES)

CM 1

CRN 121172-49-4
CMF C20 H32 Cl2 N8 O2



CM 2

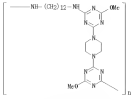
CRN 2783-17-7
CMF C12 H28 N2

RN 156594-00-1 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4-chloro-6-methoxy-1,3,5-triazin-2-yl)-, polymer with 1,2-ethanediamine (9CI) (CA INDEX NAMES)

CM 1

CRN 121172-49-4
CMF C20 H32 Cl2 N8 O2

L11 ANSWER 40 OF 209 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 156594-01-5 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4-chloro-6-ethoxy-1,3,5-triazin-2-yl)-, polymer with piperazine (9CI) (CA INDEX NAMES)

CM 1

CRN 126428-48-6
CMF C22 H36 Cl2 N8 O2

CM 2

CRN 110-85-0
CMF C4 H10 N2

RN 156594-02-4 CAPLUS
CN Poly[(6-ethoxy-1,3,5-triazine-2,4-diyl)-1,4-piperazinediyl(6-ethoxy-1,3,5-triazine-2,4-diyl)imino-1,12-dodecanediylimino] (9CI) (CA INDEX NAMES)

L11 ANSWER 40 OF 209 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

CM 3

CRN 107-15-3
CMF C2 H8 N2

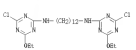
H2N-CH2-CH2-NH2

RN 156594-10-4 CAPLUS
CN Poly[(6-methoxy-1,3,5-triazine-2,4-diyl)imino-1,2-ethanediylimino(6-methoxy-1,3,5-triazine-2,4-diyl)imino-1,12-dodecanediylimino] (9CI) (CA INDEX NAMES)

RN 156594-11-5 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4-chloro-6-ethoxy-1,3,5-triazin-2-yl)-, polymer with 1,2-ethanediamine (9CI) (CA INDEX NAMES)

CM 1

CRN 126428-48-6
CMF C22 H36 Cl2 N8 O2



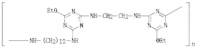
CM 2

CRN 107-15-3
CMF C2 H8 N2

H2N-CH2-CH2-NH2

RN 156594-12-6 CAPLUS
CN Poly[6'-ethoxy-1,3,5-triazine-2,4-diyl)imino-1,2'-ethanediylimino(6'-ethoxy-1,3,5-triazine-2,4-diyl)imino-1,12-dodecanediylimino] (9CI) (CA INDEX NAMES)

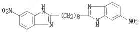
L11 ANSWER 40 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



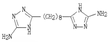
L11 ANSWER 41 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1994 226974 CAPLUS
DN 120 226974
OREF 120 40117a,40120a
TI Pharmaceutical compositions containing antihyperlipidemic or antiarteriosclerotic agents
IN Aikawa, Kazuhiro; Aoki, Kozo
PA Fuji Photo Film Co , Ltd , Japan
SO Eur Pat Appl , 41 pp
CODEN EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	EP 583665	A2	19940223	EP 1993-112181	19930729 <--
	EP 583665	A3	19940518		
	EP 583665	B1	20030305		
	R CH, DE, FR, GB, IT, LI				
	JP 06048942	A	19940222	JP 1992-204122	19920730 <--
	JP 2907646	B2	19990621		
	JP 06080563	A	19940322	JP 1992-234767	19920902 <--
	US 5387600	A	19950207	US 1993-94321	19930721 <--
PRAI	JP 1992-204122	A	19920730		
	JP 1992-234767	A	19920902		

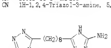
OS MARPAT 120:226974
AB Pharmaceutical compns. containing antihyperlipidemic or antiarteriosclerotic agents such as certain benzimidazole or 2,2'-methylenebisphenol derivs are prepared Thus, 5-amino-2-mercaptobenzimidazole in pyridine was reacted with dodecanoyl chloride and the solution was poured into ice-water to obtain 5-dodecanoylamino-2-mercaptobenzimidazole (I) crysts. which was filtered off and purified Rabbits were fed feed having high cholesterol content and 100 mg I /kg/day for 7 days. The amount of blood total cholesterol decreased by 25% as compared by control. A capsule containing 40 mg I were formulated.
IT 28742-73-6
RL: BIOL (Biological study)
(as antihyperlipidemic or antiarteriosclerotic agent, pharmaceutical compns containing)
RN 28742-73-6 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis[5-nitro- (9CI) (CA INDEX NAME)



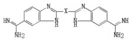
L11 ANSWER 42 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1994 181652 CAPLUS
DN 120 181652
OREF 120 31764h,31765a
TI Synthesis of nickel(II) and cobalt(II) complexes with diaminotriazolylalkanes
AU Kasatikova, E L ; Barmin, M I ; Karaulova, I B ; Mel'nikov, V V
CS St Petersburg Univ Tekhnol Dizaina, Russia
SO Izvestiya Vysshikh Uchebnykh Zavedenii, Khimiya i Khimicheskaya Tekhnologiya (1993), 36(7), 3-5
CODEN IVUKAR; ISSN 0579-2991
DT Journal
LA Russian
AB CoL(NO3)2 [L = R2(CH2)n, R = 3-(5-amino-1,2,4-triazolyl), n = 0, 1, 4, 8], NiL2(NO3)2 (n = 0, 1) and [NiL(H2O)(NO3)2] (n = 4, 8) were prepared and characterized by IR spectra and thermal decomposition studies. The activation parameters were determined for the thermal decomposition of L (n = 4, 8) and [NiL(H2O)(NO3)2] The coordination number for the Co complexes is 4 whereas that for the Ni complexes is 5 or 6
IT 26092-44-4
RL RCT (Reactant); RACT (Reactant or reagent)
(complexation with cobalt and nickel and kinetics of thermal decomposition of)
RN 26092-44-4 CAPLUS
CN 1H-1,2,4-Triazol-3-amine, 5,5'-(1,8-octanediyl)bis- (9CI) (CA INDEX NAME)



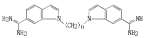
IT 26092-44-4DP, cobalt and nickel complexes
RL SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 26092-44-4 CAPLUS
CN 1H-1,2,4-Triazol-3-amine, 5,5'-(1,8-octanediyl)bis- (9CI) (CA INDEX NAME)



L11 ANSWER 43 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1993:517175 CAPLUS
DN 119:117175
OREF 119:21075a,21078a
TI Structure, DNA minor groove binding, and base pair specificity of alkyl- and aryl-linked bis(amidinobenzimidazoles) and bis(amidinoindoles)
AU Fairley, Terri A.; Tidwell, Richard R ; Donkor, Isaac; Naiman, Noreen A ; Ohemeng, Kwasi A.; Lombardy, Richard J.; Bentley, James A ; Cory, Michael
CS Div. Org. Chem., Burroughs Wellcome Co., Research Triangle Park, USA
SO Journal of Medicinal Chemistry (1993), 36(12), 1746-53
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
GI



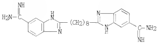
I



II

AB A series of bis(amidinobenzimidazoles), e g. I [X = (CH2)n, phenylene; n = 1-6], and bis(amidinoindoles), e g II (n = 3-6), with varied linking chains connecting the aromatic groups and various modifications to the basic amidino groups have been prepared The calf thymus (CT) DNA and nucleic acid homopolymer [poly(dA).poly(dT), poly(dA-dT)-poly-(dA-dT), and poly(dG-dC) poly(dG-dC)] binding properties of these compds have been studied by thermal denaturation (ΔTm) and viscosity The compds show a greater affinity for poly(dA).poly(dT) and poly(dA-dT) poly(dA-dT) than for poly(dG-dC) poly(dG-dC) Viscometric (dA) poly(dT) and poly(dA-dT)-poly(dA-dT) than for poly(dG-dC).poly(dG-dC). Viscometric titrns indicate that the compds. do not bind by intercalation Mol modeling studies and the biophys data suggest that the mols bind to the minor groove of CT DNA and homopolymers. Anal of the shape of the mols is consistent with this mode of nucleic acid binding Compds with an even number of methylenes connecting the benzimidazole rings have a higher affinity for DNA than those with an odd number of methylenes Mol modeling calcns that determine the radius of curvature of four defined groups in the mol show that the shape of the mol , as a function of chain length, affects the strength of nucleic acid binding Electronic effects from cationic substituents as well as hydrogen bonding from the imidazole nitrogens also contribute to the nucleic acid affinity The bis(amidinoindoles) show no structurally associated differential in nucleic acid base pair specificity or affinity
IT 75846-16-1
RL PROC (Process)
(nucleic acid binding of)
RN 75846-16-1 CAPLUS
CN 1H-Benzimidazole-5-carboximidamide, 2,2'-(1,8-octanediyl)bis- (9CI) (CA INDEX NAME)

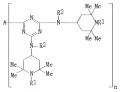
L11 ANSWER 43 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L11 ANSWER 44 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1993:497119 CAPLUS
DN 119:97119
OREF 119:17533a,17536a
TI Radiation-resistant polyolefin compositions
IN Nakahara, Yutaka; Haruna, Tooru; Yoshikawa, Kazumi; Takeuchi, Takashi
PA Asahi Denka Kogyo KK, Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05043745	A	19930223	JP 1991-202025	19910812 <--
PRAI	JP 1991-202025		19910812		

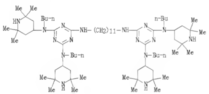
GI



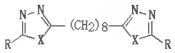
n I

AB Title compns. contain hindered amines I (A = 2-4-valent organic amine residue; A is bonded to triazine ring via N and may contain N not being bonded to triazine ring; n = 2-4; R1 = H, C1-8 alkyl, C1-8 acyl, O free radial; R2 = H, C1-18 alkyl). Thus, a composition containing Profax 6501 100, Ca stearate 0.05, tris(2,4-di-tert-butylphenyl) phosphite 0.2, and I (A = NHC6H12NH, R1 = H, R2 = C4H9, n = 2) 0.2 part was pelletized and injection molded to give a test piece showing good retentions of yield strength, breaking strength, and elongation and discoloration and heat resistance after irradiation with γ-ray.
IT 141102-18-3
RL: USES (Uses)
(radiation stabilizers, for polyolefins)
RN 141102-18-3 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,11-undecanediylbis[N',N''-dibutyl-N',N''-bis(2,2,6,6-tetramethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

L11 ANSWER 44 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

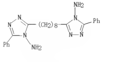


L11 ANSWER 45 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1993:428063 CAPLUS
DN 119:28063
OREF 119:5201a,5204a
TI Synthesis of new series of 1,8-bis(1,3,4-oxadiazol-2-yl)octanes and 1,8-bis(4-amino-1,2,4-triazol-3-yl)octanes
AU Kudari, S. M.; Lagali, K. H.
CS Dep. Chem., Gulbarga Univ., Gulbarga, 585 106, India
SO Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1993), 32B(3), 379-80
CODEN: IJSBDB; ISSN: 0376-4699
DT Journal
LA English
OS CASREACT 119:28063
GI

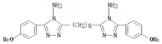


I

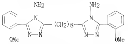
AB The acylhydrazones RCH:NNHCO(CH2)8CONHN:CHR [R = Ph, 4-MeOC6H4, 2-MeOC6H4, 2-HOC6H4, 2,4-HO(Me)C6H3, 4-ClC6H4, 2,4-HO(Cl)C6H3, PhCH:CH, 2,6-HO(Me)C6H3, 2-hydroxy-1-naphthyl, 3,4-(MeO)2C6H3] obtained from the treatment of sebacic acid dihydrazide H2NNHCO(CH2)8CONHNH2 with various aromatic aldehydes RCHO, on oxidative cyclization with ferric chloride yield bis(oxadiazolyl)octanes I (X = O), which are converted into bis(aminotriazolyl)octanes I (X = NNH2) with hydrazine hydrate.
IT 148228-47-1P 148228-64-2P 148228-65-3P
148228-66-4P 148228-67-5P 148228-68-6P
148228-69-7P 148228-70-0P 148228-71-1P
148228-72-2P 148228-73-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 148228-47-1 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-phenyl- (CA INDEX NAME)



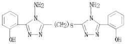
RN 148228-64-2 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-(4-methoxyphenyl)- (CA INDEX NAME)



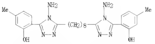
L11 ANSWER 45 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
RN 148228-65-3 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-(2-methoxyphenyl)- (CA INDEX NAME)



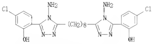
RN 148228-66-4 CAPLUS
CN Phenol, 2,2'-[1,8-octanediylbis(4-amino-4H-1,2,4-triazole-5,3-diyl)]bis- (9CI) (CA INDEX NAME)



RN 148228-67-5 CAPLUS
CN Phenol, 2,2'-[1,8-octanediylbis(4-amino-4H-1,2,4-triazole-5,3-diyl)]bis[5-methyl- (9CI) (CA INDEX NAME)

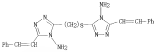


RN 148228-68-6 CAPLUS
CN Phenol, 2,2'-[1,8-octanediylbis(4-amino-4H-1,2,4-triazole-5,3-diyl)]bis[5-chloro- (9CI) (CA INDEX NAME)

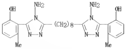


RN 148228-69-7 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-(2-phenylethenyl)- (CA INDEX NAME)

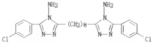
L11 ANSWER 45 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



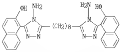
RN 148228-70-0 CAPLUS
CN Phenol, 2,2'-[1,8-octanediylbis(4-amino-4H-1,2,4-triazole-5,3-diyl)]bis[3-methyl- (9CI) (CA INDEX NAME)



RN 148228-71-1 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-(4-chlorophenyl)- (CA INDEX NAME)

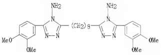


RN 148228-72-2 CAPLUS
CN 2-Naphthalenol, 1,1'-[1,8-octanediylbis(4-amino-4H-1,2,4-triazole-5,3-diyl)]bis- (9CI) (CA INDEX NAME)



RN 148228-73-3 CAPLUS
CN 4H-1,2,4-Triazol-4-amine, 3,3'-(1,8-octanediyl)bis[5-(3,4-dimethoxyphenyl)- (CA INDEX NAME)

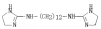
L11 ANSWER 45 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



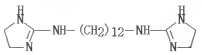
L11 ANSWER 46 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1992:426585 CAPLUS
DN 117:26585
OREF 117:4807a,4810a
TI Preparation of bis(guanidino)(aza)alkanes as agrochemical fungicides
IN Mueller, Thomas; Zipplies, Matthias; Ammermann, Eberhard; Lorenz, Gisela
PA BASF A.-G., Germany
SO Eur. Pat. Appl., 30 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 472093	A1	19920226	EP 1991-113556	19910813 <--
	EP 472093	B1	19931103		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE				
	DE 4026473	A1	19920227	DE 1990-4026473	19900822 <--
	CA 2048379	A1	19920223	CA 1991-2048379	19910802 <--
	JP 04230654	A	19920819	JP 1991-200176	19910809 <--
	US 5242948	A	19930907	US 1991-743160	19910809 <--
	AT 96778	T	19931115	AT 1991-113556	19910813 <--
	ES 2060260	T3	19941116	ES 1991-113556	19910813 <--
	US 5302620	A	19940412	US 1993-49439	19930420 <--
PRAI	DE 1990-4026473	A	19900822		
	US 1991-743160	A3	19910809		
	EP 1991-113556	A	19910813		

OS CASREACT 117:26585; MARPAT 117:26585
AB [R1NHC(:NR2)NH(CH2)n]2X [I; R1, R2 = H, (cyclo)alkyl, alkenyl, alkoxyalkyl, PhCH2, etc.; R1R2 = atoms to form a ring; X = CH2, O, bond NH, etc.] were prepared. Thus, dicyclohexylcarbodiimide was condensed with [H2N(CH2)6]2NH to give, after acidification, I.3HCl (R1 = R2 = cyclohexyl, X = NH) which gave 95% control of Plasmopara viticola on bean plants when sprayed 8 days prior to infestation at 0.025 weight%.
IT 141951-28-2P 141951-29-3P 141951-30-6P
141951-31-7P 141951-32-8P 141951-33-9P
141951-34-0P 141951-35-1P 141951-36-2P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as agrochem. fungicide)
RN 141951-28-2 CAPLUS
CN 1,12-Dodecanediamine, N1,N12-bis(4,5-dihydro-1H-imidazol-2-yl)- (CA INDEX NAME)



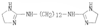
RN 141951-29-3 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4,5-dihydro-1H-imidazol-2-yl)-, monohydriodide (9CI) (CA INDEX NAME)



● HI

L11 ANSWER 46 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

RN 141951-30-6 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4,5-dihydro-1H-imidazol-2-yl)-, monohydrochloride (9CI) (CA INDEX NAME)

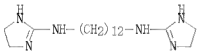


● HCl

RN 141951-31-7 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4,5-dihydro-1H-imidazol-2-yl)-, monoacetate (9CI) (CA INDEX NAME)

CM 1

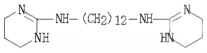
CRN 141951-28-2
CMF C18 H36 N6



CM 2

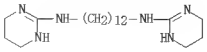
CRN 64-19-7
CMF C2 H4 O2

RN 141951-32-8 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(1,4,5,6-tetrahydro-2-pyrimidinyl)- (9CI) (CA INDEX NAME)



RN 141951-33-9 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(1,4,5,6-tetrahydro-2-pyrimidinyl)-, monohydrochloride (9CI) (CA INDEX NAME)

L11 ANSWER 46 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



● HCl

RN 141951-34-0 CAPLUS
CN 1,12-Dodecanediamine, N1,N12-bis(1,4,5,6-tetrahydro-2-pyrimidinyl)-, hydriodide (1:2) (CA INDEX NAME)

●2 HI

RN 141951-35-1 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(1,4,5,6-tetrahydro-2-pyrimidinyl)-, monoacetate (9CI) (CA INDEX NAME)

CM 1

CRN 141951-32-8
CMF C20 H40 N6

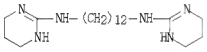
CM 2

CRN 64-19-7
CMF C2 H4 O2

RN 141951-36-2 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(1,4,5,6-tetrahydro-2-pyrimidinyl)-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

L11 ANSWER 46 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
CRN 141951-32-8
CMF C20 H40 N6



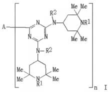
CM 2

CRN 144-62-7
CMF C2 H2 O4

L11 ANSWER 47 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1992:215685 CAPLUS
DN 116:215685
OREF 116:36561a,36564a
TI Weather resistant polyolefin-olefin rubber blends
IN Nakahara, Yutaka; Haruna, Toru; Sugibuchi, Kazuo
PA Asahi Denka Kogyo K. K., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

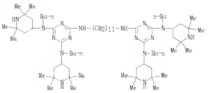
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03275746	A	19911206	JP 1990-74036	19900323 <--
PRAI	JP 1990-74036		19900323		

GI



AB The title blends contain 0.001-5 ph hindered amine I (A = organic group, R1 = H, alkyl, acyl, O.; R2 = H, alkyl; n = 2-4), 50-95 parts crystalline polyolefin, and 50-5 parts C2H4-α-olefin rubbers. Thus, a blend of 7:93 C2H4-C3H6 copolymer 70, 75:25 EPR 30, additives 0.25, and I (A = HNC6H12NH, R1 = H, R2 = Bu, n = 2) (II) 0.3 part had time to cracking in a Weatherometer at 83° 1120 h and yellowness index 6.3 and 9.5 after 0 and 480 h weathering, resp., vs. 660, 10.4, and 16.9, resp., with bis(2,2,6,6-tetramethyl-4-piperidinyl) sebacate in place of II.
IT 141102-18-3
RL: USES (Uses)
(light stabilizers, for polyolefin blends with olefin rubbers)
RN 141102-18-3 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,11-undecanediylbis[N',N''-dibutyl-N',N''-bis(2,2,6,6-tetramethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

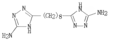
L11 ANSWER 47 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L11 ANSWER 48 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1992:174870 CAPLUS
DN 116:174870
OREF 116:29629a,29632a
TI Synthesis and study of oligoamides of bis(5-amino-1,2,4-triazolyl)alkanes
AU Shemyakin, A. I.; Gromova, S. A.; Kasatkova, E. L.; Barmin, M. I.
CS Leningr. Inst. Tekstil. Legkoi Prom., Leningrad, USSR
SO Izvestiya Vysshikh Uchebnykh Zavedenii, Khimiya i Khimicheskaya Tekhnologiya (1991), 34(11), 108-9
CODEN: IVUKAR; ISSN: 0579-2991
DT Journal
LA Russian
AB Oligomeric polyamides from adipoyl chloride or terephthaloyl chloride and 1,2,4-triazole diamines were prepared by low-temperature nonequil. polymerization at the interface and were characterized. Physicochem. properties were investigated. The reasons for low mol. weight were discussed.
IT 140218-96-8P 140219-20-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization and properties of)
RN 140218-96-8 CAPLUS
CN 1,4-Benzenedicarboxylic acid, polymer with 5,5'-(1,8-octanediyl)bis[1H-1,2,4-triazol-3-amine] (9CI) (CA INDEX NAME)

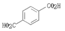
CM 1

CRN 26092-44-4
CMF C12 H22 N8



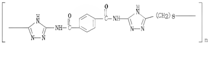
CM 2

CRN 100-21-0
CMF C8 H6 O4

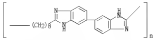


RN 140219-20-1 CAPLUS
CN Poly(1H-1,2,4-triazole-3,5-diyliminocarbonyl-1,4-phenylenecarbonylimino-1H-1,2,4-triazole-3,5-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)

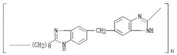
L11 ANSWER 48 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



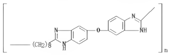
L11 ANSWER 49 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1991:247894 CAPLUS
DN 114:247894
OREF 114:41883a,41886a
TI The synthesis and investigation of thermostable soluble polybenzazoles
AU Izyneev, A. A.; Varga, J.; Mazurevskaya, Sh. P.; Novak, I. S.; Mazurevskii, V. P.; Mognonov, D. M.; Radnaeva, L. D.
CS Inst. Nat. Sci., Ulan-Ude, 670042, USSR
SO Acta Polymerica (1991), 42(2-3), 128-30
CODEN: ACPODY; ISSN: 0323-7648
DT Journal
LA English
AB Poly(benzimidazoles) and poly(amidobenzimidazoles) produced from different tetramines, di-Ph dicarboxylates, and ε-caprolactam or diamines were investigated. 3,3'-Diaminobenzidine or aromatic tetramines containing methylene, oxy, or sulfonyl groups between the benzene rings were used in the synthesis. The polymers obtained were thermostable, soluble, and had high mol. wts.
IT 25035-65-8P 31850-71-2P 53202-18-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of soluble, with good thermal stability)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



RN 31850-71-2 CAPLUS
CN Poly(1H-benzimidazole-2,5-diylmethylene-1H-benzimidazole-5,2-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)



RN 53202-18-9 CAPLUS
CN Poly(1H-benzimidazole-2,5-diyloxy-1H-benzimidazole-5,2-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)



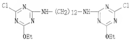
L11 ANSWER 50 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1991 82775 CAPLUS
DN 114 82775
OREF 114 14157a,14160a
TI A process for the preparation of triazinic group-containing polyamines
IN Fornasier, Roberto, Tornatore, Massimo, Chapoy, Larry Lawrence
PA Himont Italia S r 1 , Italy
SO Eur Pat Appl , 6 pp
CODEN EPXXDW
DT Patent
LA English
FAN CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	EP 380017	A2	19900801	EP 1990-101200	19900122 <--
	EP 380017	A3	19910807		
	R BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
	CA 2008353	A1	19900724	CA 1990-2008353	19900123 <--
	BR 9000262	A	19901120	BR 1990-262	19900123 <--
	AU 9048764	A	19900802	AU 1990-48764	19900124 <--
	AU 625240	B2	19920702		
	JP 02232230	A	19900914	JP 1990-12745	19900124 <--
PRAI	IT 1989-19165	A	19890124		

AB The title polymers, which can be prepared in ≤60 s (polymerization time) and have an amorphous structure, are prepared without causing a collapse in the mol weight by condensing bifunctional triazine derivs. with 2 equivs of ≥1 diamine Thus, heating 38 8 g of 2,4-dichloro-6-ethoxy-1,3,5-triazine, 40 0 g of 1,12-diaminododecane, and 400 mL of xylene to 60° for 0 5 h under N, adding 23 2 g of 1,6-diaminohexane, heating to 130° with stirring under N for 15 min, precipitating by the addition of 40 mL of HCO2H, drying at 130° for 16 h gave an amorphous (x-ray diffraction spectrum) polymer showing inherent viscosity 2.6 dL/g and glass-transition temperature 80°
IT 131808-07-6P
RL IMF (Industrial manufacture); PREP (Preparation)
(manuf of, amorphous, in less than 1 h polymerization time)
RN 131808-07-6 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4-chloro-6-ethoxy-1,3,5-triazin-2-yl)-, polymer with 1,12-dodecanediamine and 1,6-hexanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 126428-48-6
CMF C22 H36 C12 N8 02



CM 2

CRN 2783-17-7
CMF C12 H28 N2

L11 ANSWER 50 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

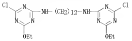
$H_2N-(CH_2)_{12}-NH_2$

CM 3

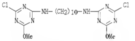
CRN 124-09-4
CMF C6 H16 N2

$H_2N-(CH_2)_6-NH_2$

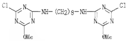
IT 126428-48-6P
RL RCT (Reactant), SPN (Synthetic preparation), PREP (Preparation), RACT (Reactant or reagent)
(preparation and polymerization of)
RN 126428-48-6 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4-chloro-6-ethoxy-1,3,5-triazin-2-yl)- (9CI) (CA INDEX NAME)



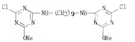
L11 ANSWER 51 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1991 53256 CAPLUS
DN 114 53256
OREF 114 9001a,9004a
TI The synthesis and characterization of a new class of liquid crystals based on bis-triazinic compounds
AU Fornasier, R , Tornatore, M , Chapoy, L L
CS HIMONT Italia, Novara, 28100, Italy
SO Liquid Crystals (1990), 8(6), 787-96
CODEN LICRE6, ISSN 0267-8292
DT Journal
LA English
AB The synthesis and characterization of a new class of liquid crystals based on sym bis-triazine rings connected by a flexible alkyl spacer is reported A mechanism to account for the liquid-crystallinity in this system is proposed Slow kinetics for the formation of the mesophase from the isotropic phase and the crystalline phase from the mesophase make the melting transitions virtually irreversible. Potential areas of application are identified.
IT 121172-45-0P 121172-47-2P 121172-48-3P
121172-49-4P 126428-48-6P
RL PRP (Properties), SPN (Synthetic preparation), PREP (Preparation)
(liquid crystal, preparation and transition temps. of)
RN 121172-45-0 CAPLUS
CN 1,10-Decanediamine, N,N'-bis(4-chloro-6-methoxy-1,3,5-triazin-2-yl)- (9CI) (CA INDEX NAME)



RN 121172-47-2 CAPLUS
CN 1,8-Octanediamine, N,N'-bis(4-chloro-6-methoxy-1,3,5-triazin-2-yl)- (9CI) (CA INDEX NAME)

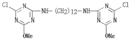


RN 121172-48-3 CAPLUS
CN 1,9-Nonanediamine, N,N'-bis(4-chloro-6-methoxy-1,3,5-triazin-2-yl)- (9CI) (CA INDEX NAME)

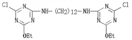


RN 121172-49-4 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4-chloro-6-methoxy-1,3,5-triazin-2-yl)- (9CI) (CA INDEX NAME)

L11 ANSWER 51 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

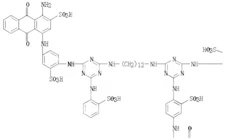


RN 126428-48-6 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4-chloro-6-ethoxy-1,3,5-triazin-2-yl)- (9CI) (CA INDEX NAME)



L11 ANSWER 52 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1991:38174 CAPLUS
DN 114:38174
OREF 114:6567a,6570a
TI Complications encountered using Cibacron Blue F3G-A as a ligand for affinity precipitation of lactate dehydrogenase
AU Morris, John E.; Fisher, Rod R.
CS Dep. Chem. Eng., Univ. Washington, Seattle, WA, 98195, USA
SO Biotechnology and Bioengineering (1990), 36(7), 737-43
CODEN: BIBIAU; ISSN: 0006-3592
DT Journal
LA English
AB The use of the affinity interaction between Cibacron Blue F3G-A (CB) and NADH-dependent enzymes to selectively precipitate these enzymes has been examined. An attempt was made to form crosslinked ppts. of lactate dehydrogenase (LDH) using bis- and poly-CB conjugates. When precipitation was not observed, an examination of the interaction between the enzyme and the conjugated CB was made. Quasielastic light scattering indicated only a slight radius increase, the greatest being from 50 to 130 Å, when a CB-dextran conjugate was added to a solution of LDH, and no increase when bis-CB made with a 1,6-diaminohexane spacer was added to a similar solution. The results of enzyme inhibition studies showed that conjugated CB bound at the NAD+ site of LDH. Spectral measurements of the conjugated CB below 5 µM were similar to those reported for a stacking interaction that occurs in solns. with CB concns. above 5 µM. It was concluded that the conjugated CB is binding to the LDH, but that a competing dye stacking interaction prevents extensive crosslinking of the LDH, and thus inhibits precipitation.
IT 131404-54-1
RL: BIOL (Biological study)
(lactate dehydrogenase inhibition by)
RN 131404-54-1 CAPLUS
CN 2-Anthracenesulfonic acid, 4,4'-[1,12-dodecanediylbis[imino[6-[(2-sulfophenyl)amino]-1,3,5-triazine-4,2-diyl]imino(3-sulfo-4,1-phenylene)imino]]bis[1-amino-9,10-dihydro-9,10-dioxo- (9CI) (CA INDEX NAME)

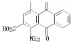
PAGE 1-A



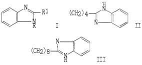
L11 ANSWER 52 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

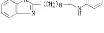
PAGE 2-A



L11 ANSWER 53 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1990:580203 CAPLUS
DN 113:180203
OREF 113:30381a,30384a
TI Inhibition of acid corrosion of steel by benzimidazole derivatives of different structures
AU Chervinskii, A. Yu.; Shein, A. B.; Vdovichenko, A. N.; Morozova, T. L.; Kapkan, L. M.
CS Inst. Fiz.-Org. Khim. Uglekhim., Donetsk, USSR
SO Zashchita Metallov (1990), 26(4), 665-7
CODEN: ZAMEA9; ISSN: 0044-1856
DT Journal
LA Russian
GI



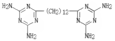
AB In connection with the use of substituted benzimidazoles as inhibitors of acid corrosion of steel, (e.g. St.3) attention was turned to the structural factors determining the lipophilicity of the inhibitors mols. and easily giving way to a change: the length of the alkyl chain in the position 2 of the heterocycle, the presence in it of branching, the presence and the nature of substituents at the N(1) atom, the number of heterocyclic rings in an aliphatic chain and other characteristics for the explanation of which this work is reported. The protective effects were studied of substituted benzimidazoles of the general formula (I, where R is H, Me, CH2CH2CN, CH2SMe or CH2N(CH2)5 and R1 is H, Me, Et, n-Pr, n-Bu, n-C7H15, n-C15H31, CH2N(Et)2, NHC(NH)NH2, II, or III). Corrosion tests of the St.3 samples were conducted in EtOH solns. of 1N HCl with and without a given concentration of the inhibitor compound at 20° for 24 h. In all the studied cases, the substitution of a H atom at the N of the benzimidazole "alkyl" groups led to a significant increase in the inhibition efficiency.
IT 5233-14-7
RL: USES (Uses)
(corrosion inhibitors, for steel in ethanolic hydrochloric acid solution)
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)



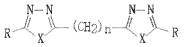
L11 ANSWER 54 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1990:479188 CAPLUS
DN 113:79188
OREF 113:13413a,13416a
TI Stabilization of aqueous formaldehyde solutions with guanamine derivatives
IN Werle, Peter; Trageser, Martin
PA Degussa A.-G., Germany
SO Ger. Offen., 3 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	DE 3836047	A1	19900426	DE 1988-3836047	19881022	<--
	DE 3836047	C2	19911114			
	EP 365771	A1	19900502	EP 1989-114631	19890808	<--
	EP 365771	B1	19921119			
	R: AT, BE, DE, FR, IT, NL					
	AT 82565	T	19921215	AT 1989-114631	19890808	<--
PRAI	DE 1988-3836047	A	19881022			
	EP 1989-114631	A	19890808			

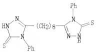
OS MARPAT 113:79188
AB Aqueous HCHO is stabilized against polymerization at -20° to +60° by 0.01-0.2% alkyl- or arylguanamine or alkylene- of arylenebiguanamine or methylol derivative.
IT 77442-86-5
RL: USES (Uses)
(polymerization inhibitors, for aqueous formaldehyde)
RN 77442-86-5 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,12-dodecanediyl)bis- (CA INDEX NAME)



L11 ANSWER 55 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1990:198242 CAPLUS
DN 112:198242
OREF 112:33516h,33517a
TI Synthesis of thiosemicarbazides, triazoles, thiadiazoles and oxadiazoles
AU Majee, R. N.
CS Chem. Div., Indian Lac Res. Inst., Ranchi, 834 010, India
SO Current Science (1989), 58(21), 1198-201
CODEN: CUSCAM; ISSN: 0011-3891
DT Journal
LA English
GI


II

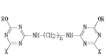
AB Thiosemicarbazides PhNHC(S)NHNHCO(CH2)nCONHNHC(S)NHPh (I; n = 5-8) were prepared by the reaction of H2NNHCO(CH2)nCONHNH2 with PhNCS. Cyclization of I (n = 5-8) with 2N NaOH gave triazoles II (R = SH, X = NPh). Thiadiazoles II (R = NHPh, X = S, n = 5-6) were obtained by the cyclization of I (n = 5-8) with concentrated H2SO4. Cyclization of I with 4N NaOH in MeOH followed by treatment with iodine in aqueous KI gave oxadiazoles II (R = SH, X = O, n = 5-8).
IT 72743-78-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 72743-78-3 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5,5'-(1,8-octanediyl)bis[2,4-dihydro-4-phenyl- (CA INDEX NAME)



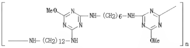
L11 ANSWER 56 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1990:159208 CAPLUS
DN 112:159208
OREF 112:26927a,26930a
TI Liquid-crystalline, thermotropic polymers of di-s-triazines
IN Fornasier, Roberto; Tornatore, Massimo; Chapoy, Larry Lawrence
PA Himont Italia S.r.l., Italy
SO Eur. Pat. Appl., 5 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 337133	A1	19891018	EP 1989-104492	19890314 <--
	R: DE, ES, FR, GB, NL, SE				
	US 4985539	A	19910115	US 1989-322424	19890313 <--
	JP 01304123	A	19891207	JP 1989-63401	19890314 <--
PRAI	IT 1988-41004	A	19880314		

GI

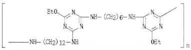

I

AB The title polymers are prepared by the polycondensation of ditriazines I (R = C1-5 alkyl; X = halogen; n = 5-30) with copolymerizable monomers. Thus, heating N,N'-bis(2-chloro-4-ethoxy-1,3,5-triazinyl)-1,12-diaminododecane 2.57, 1,12-diaminododecane 1, and Na2CO3 8 in 50 mL xylene at 130° for 60 h under N gave a polymer having glass transition temperature 93°, intrinsic viscosity 8.7 dL/g (at 30°, in HCO2H), and optical anisotropy in molten state.
IT 126324-47-8P 126324-48-9P 126324-49-0P 126324-50-3P 126428-49-7P 126428-54-4P 126428-55-5P
RL: PREP (Preparation)
(preparation of liquid crystalline thermotropic)
RN 126324-47-8 CAPLUS
CN Poly[(6-methoxy-1,3,5-triazine-2,4-diyl)imino-1,6-hexanediylimino(6-methoxy-1,3,5-triazine-2,4-diyl)imino-1,12-dodecanediylimino] (9CI) (CA INDEX NAME)

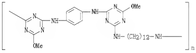


RN 126324-48-9 CAPLUS
CN Poly[(6-ethoxy-1,3,5-triazine-2,4-diyl)imino-1,6-hexanediylimino(6-ethoxy-1,3,5-triazine-2,4-diyl)imino-1,12-dodecanediylimino] (9CI) (CA INDEX

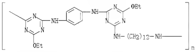
L11 ANSWER 56 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
NAME)



RN 126324-49-0 CAPLUS
CN Poly[(6-methoxy-1,3,5-triazine-2,4-diyl)imino-1,4-phenyleneimino(6-methoxy-1,3,5-triazine-2,4-diyl)imino-1,12-dodecanediylimino] (9CI) (CA INDEX NAME)



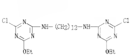
RN 126324-50-3 CAPLUS
CN Poly[(6-ethoxy-1,3,5-triazine-2,4-diyl)imino-1,4-phenyleneimino(6-ethoxy-1,3,5-triazine-2,4-diyl)imino-1,12-dodecanediylimino] (9CI) (CA INDEX NAME)



RN 126428-49-7 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4-chloro-6-ethoxy-1,3,5-triazin-2-yl)-, polymer with 1,12-dodecanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 126428-48-6
CMF C22 H36 Cl2 N8 O2



CM 2

L11 ANSWER 56 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

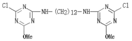
CRN 2783-17-7
CMF C12 H28 N2

$H_2N-(CH_2)_{12}-NH_2$

RN 126428-54-4 CAPLUS
CN 1,4-Benzenediamine, polymer with N,N'-bis(4-chloro-6-methoxy-1,3,5-triazin-2-yl)-1,12-dodecanediamine (9CI) (CA INDEX NAME)

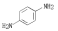
CM 1

CRN 121172-49-4
CMF C20 H32 Cl2 N8 O2



CM 2

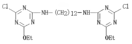
CRN 106-50-3
CMF C6 H8 N2



RN 126428-55-5 CAPLUS
CN 1,4-Benzenediamine, polymer with N,N'-bis(4-chloro-6-ethoxy-1,3,5-triazin-2-yl)-1,12-dodecanediamine (9CI) (CA INDEX NAME)

CM 1

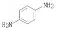
CRN 126428-48-6
CMF C22 H36 Cl2 N8 O2



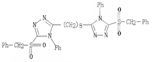
CM 2

CRN 106-50-3
CMF C6 H8 N2

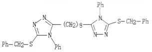
L11 ANSWER 56 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



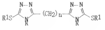
L11 ANSWER 57 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



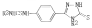
IT 116987-13-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(S-oxidation of, with permanganate)
RN 116987-13-4 CAPLUS
CN 4H-1,2,4-Triazole, 3,3'-(1,8-octanediyl)bis[4-phenyl-5-[(phenylmethyl)thio]- (CA INDEX NAME)



L11 ANSWER 57 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1990:77054 CAPLUS
DN 112:77054
OREF 112:13171a,13174a
TI Chemotherapeutic agents. IX. Synthesis and pesticidal activities of bis[4-aryl/alkyl-1,2,4-triazoline-5-thion-3-yl]alkanes and 1-aryl/alkyl-3-[4-(4-aryl/alkyl-1,2,4-triazoline-5-thion-3-yl)phenyl]thiourea and related compounds
AU Ram, Vishnu J.; Dube, Vidyottama, Mrs.; Pieters, Luc A. C.; Vlietinck, Arnold J.
CS Med. Chem. Div., CDRI, Lucknow, 226001, India
SO Journal of Heterocyclic Chemistry (1989), 26(3), 625-8
CODEN: JHTCAD; ISSN: 0022-152X
DT Journal
LA English
OS CASREACT 112:77054
GI



I



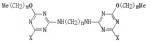
II

AB Various bis(1,2,4-triazoline-5-thion-3-yl)alkanes I [n = 0-4; R = Me, Et, CHMe2, C6H4F-3, C6H4Me-3; R1 = H, Me, 2,4-(O2N)2C6H3, PhCH2, 3,4-Cl2C6H3CH2, allyl, Me(CH2)4] were prepared by alkaline cyclization of the corresponding bis(thiosemicarbazides) and transformed into sulfides by reaction with different alkyl halides in an alkaline medium. These compds. were further oxidized to the corresponding sulfones with acidic KMnO4. 1-Aryl-3-[4-(4-aryl/alkyl-1,2,4-triazoline-3-thion-5-yl)phenyl]thioureas II (R2 = Ph, 3- and 4-MeC6H4, Me2CH, Bu) were prepared in 2 steps from 4-H2NC6H4CONHNH2 with isothiocyanates. Alkylation of II with different alkyl halides yielded sulfides exclusively. Some sulfides and Mannich bases from 5-(p-fluorophenyl)-1,3,4-oxadiazol-2-thione were also prepared to evaluate their pesticidal activities. All the prepared compds. were screened for pesticidal activities but none exhibited any significant activity.
IT 116987-23-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and antifungal, antiviral, and antibacterial activities of)
RN 116987-23-6 CAPLUS
CN 4H-1,2,4-Triazole, 3,3'-(1,8-octanediyl)bis[4-phenyl-5-[(phenylmethyl)sulfonyl]- (CA INDEX NAME)

L11 ANSWER 58 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1989:423539 CAPLUS
DN 111:23539
OREF 111:4101a,4104a
TI Thermotropic bis(s-triazinylamino)alkanes
IN Fornasier, Roberto; Tornatore, Massimo; Chapoy, L. Lawrence
PA Montedison S.p.A., Italy
SO Eur. Pat. Appl., 8 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 300753	A2	19890125	EP 1988-306634	19880720 <--
	EP 300753	A3	19891213		
	R: DE, FR, GB, IT, NL				
	JP 01040473	A	19890210	JP 1988-182767	19880720 <--
	US 4942233	A	19900717	US 1988-221744	19880720 <--
PRAI	IT 1987-21369	A	19870721		

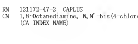
OS MARPAT 111:23539
GI



I

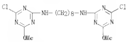
II

AB The title compds. [I; X = halo, Me(CH2)mO, m = 0-5, n = 5-20), useful as liquid crystal compns. (no data), are prepared. A solution of H2N(CH2)6NH2 in aqueous dioxane was added to a solution of triazine derivative II and Na2CO3 in dioxane with stirring and the solution heated at 80° to give 68% I (X = Cl, m = 0, n = 6). Similarly prepared were 5 addnl. I.
IT 121172-45-0P 121172-47-2P 121172-48-3P
121172-49-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as thermotropic liquid crystal composition)
RN 121172-45-0 CAPLUS
CN 1,10-Decanediamine, N,N'-bis(4-chloro-6-methoxy-1,3,5-triazin-2-yl)- (9CI) (CA INDEX NAME)

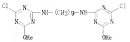


RN 121172-47-2 CAPLUS
CN 1,8-Octanediamine, N,N'-bis(4-chloro-6-methoxy-1,3,5-triazin-2-yl)- (9CI) (CA INDEX NAME)

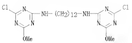
L11 ANSWER 58 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 121172-48-3 CAPLUS
CN 1,9-Nonanediamine, N,N'-bis(4-chloro-6-methoxy-1,3,5-triazin-2-yl)- (9CI) (CA INDEX NAME)



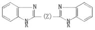
RN 121172-49-4 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4-chloro-6-methoxy-1,3,5-triazin-2-yl)- (9CI) (CA INDEX NAME)

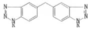


L11 ANSWER 59 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1989:163601 CAPLUS
DN 110:163601
OREF 110:26925a,26928a
TI Photosensitive mixtures containing heterocyclic quinonediazides
IN Bauer, Sigrid
PA Ciba-Geigy A.-G., Switz.
SO Eur. Pat. Appl., 9 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 268553	A1	19880525	EP 1987-810585	19871012 <--
	EP 268553	B1	19910911		
	R: CH, DE, FR, GB, IT, LI, NL				
	US 4835085	A	19890530	US 1987-105379	19871007 <--
	CA 1326031	C	19940111	CA 1987-549303	19871015 <--
	JP 63104966	A	19880510	JP 1987-262570	19871017 <--
PRAI	CH 1986-4156	A	19861017		

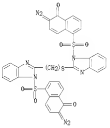
OS MARPAT 110:163601
GI


I

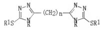

II

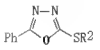
AB A photosensitive composition comprises I or II [R = 1,2-naphthaquinone-2-diazide-4- or 5-sulfonyl; Z = CH:CH or C1-12 alkylene]. The composition can be used for forming pos. or neg. images. Thus, a reaction product of 5,5'-methylenebisbenzotriazole and 1,2-naphthoquinone-2-diazide-5-sulfonyl chloride was used form an image at room temperature. The decomposition temperature of he
quinonediazide was 125°.
IT 119930-99-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use of, in photoresists)
RN 119930-99-3 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis[1-[(6-diazo-5,6-dihydro-5-oxo-1-naphthalenyl)sulfonyl]- (9CI) (CA INDEX NAME)

L11 ANSWER 59 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



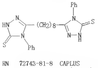
L11 ANSWER 60 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1988:570326 CAPLUS
DN 109:170326
OREF 109:28251a,28254a
TI Chemotherapeutical agents. VII. Synthesis and pesticidal activities of sulfides and sulfones derived from bis[4-aryl-5-oxo-1,2,4-triazolin-3-yl]alkane and 5-phenyl-1,3,4-oxadiazole-2-thione
AU Ram, Vishnu J.; Vlietinck, Arnold J.
CS Dep. Chem., S. C. Coll. Ballia [1], Ballia, India
SO Journal of Heterocyclic Chemistry (1988), 25(1), 253-6
CODEN: JHTCAD; ISSN: 0022-152X
DT Journal
LA English
OS CASREACT 109:170326
GI


I


II

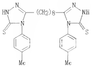

III

AB The bis[4-aryl-3-alkylthio-1,2,4-triazol-5-yl]alkanes I [R = (un)substituted Ph, R1 = alkyl, allyl, benzyl; n = 0, 2, 4, 8] were prepared by the action of alkyl halides on bis[4-aryl-1,2,4-triazoline-5-thion-5-yl]alkanes in aqueous sodium hydroxide (5%). The prepared sulfides I were oxidized to give the corresponding sulfones either with acidic potassium permanganate or hydrogen peroxide. Similarly, sulfides II [R2 = 2-, 4-O2NC6H4CH2, 2,4-(O2N)2C6H3, 4-ClC6H4CH2] were prepared from 5-phenyl-1,3,4-oxadiazole-2-thione by reaction with different alkyl halides in alkaline medium. Mannich bases III [R3 = Ph2CHNH, (PhCH2)2N, substituted anilino] from 5-phenyl-1,3,4-oxadiazole-2-thione were also prepared. All the compds. were screened for their pesticidal activities but non showed significant activity.
IT 72743-78-3 72743-81-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkylation of)
RN 72743-78-3 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5,5'-(1,8-octanediyl)bis[2,4-dihydro-4-phenyl- (CA INDEX NAME)

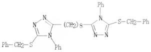


RN 72743-81-8 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5,5'-(1,8-octanediyl)bis[2,4-dihydro-4-(4-methylphenyl)- (CA INDEX NAME)

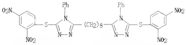
L11 ANSWER 60 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



IT 116987-13-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and oxidation of)
RN 116987-13-4 CAPLUS
CN 4H-1,2,4-Triazole, 3,3'-(1,8-octanediyl)bis[4-phenyl-5-[(phenylmethyl)thio]- (CA INDEX NAME)

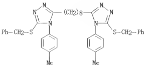


IT 54188-83-9P 116987-14-5P 116987-15-6P
116987-23-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 54188-83-9 CAPLUS
CN 4H-1,2,4-Triazole, 3,3'-(1,8-octanediyl)bis[5-[(2,4-dinitrophenyl)thio]-4-phenyl- (CA INDEX NAME)

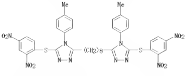


RN 116987-14-5 CAPLUS
CN 4H-1,2,4-Triazole, 3,3'-(1,8-octanediyl)bis[4-(4-methylphenyl)-5-[(phenylmethyl)thio]- (CA INDEX NAME)

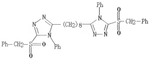
L11 ANSWER 60 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 116987-15-6 CAPLUS
CN 4H-1,2,4-Triazole, 3,3'-(1,8-octanediyl)bis[5-[(2,4-dinitrophenyl)thio]-4-(4-methylphenyl)- (CA INDEX NAME)



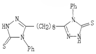
RN 116987-23-6 CAPLUS
CN 4H-1,2,4-Triazole, 3,3'-(1,8-octanediyl)bis[4-phenyl-5-[(phenylmethyl)sulfonyl]- (CA INDEX NAME)



L11 ANSWER 61 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1987:506167 CAPLUS
DN 107:106167
OREF 107:17123a,17126a
TI Silver halide photographic photosensitive material
IN Ikeda, Hideo; Ono, Shigeru; Nakamura, Takemare
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62006248	A	19870113	JP 1985-144893	19850702 <--
PRAI	JP 1985-144893		19850702		

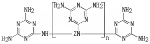
AB The claimed photog. material contains a photosensitive Ag halide emulsion and an internally fogged Ag halide emulsion, on surface of which a compound of the formula RZR1 (R, R1 = heterocyclyl having SH or enolizable thione group; Z = linkage group) is adsorbed. The photog. material shows high sensitivity, high contrast, and high Dmax. The photog. material also shows excellent automatic processability and storage stability.
IT 72743-78-3P
RL: PREP (Preparation)
(preparation of, as photog. fog inhibitor)
RN 72743-78-3 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5,5'-(1,8-octanediyl)bis[2,4-dihydro-4-phenyl- (CA INDEX NAME)



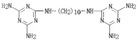
L11 ANSWER 62 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1987:424241 CAPLUS
DN 107:24241
OREF 107:4107a,4110a
TI Polyolefin compositions
IN Ozeki, Toshio; Nishina, Takao
PA Adeka Argus Chemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61225232	A	19861007	JP 1985-66299	19850329 <--
	JP 05054498	B	19930812		
PRAI	JP 1985-66299		19850329		

GI


I

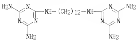
AB Polyolefin compns. with good stability against heavy metals contain 0.001-10 parts melamine compds. I (Z = C1-15 hydrocarbon, n = 0-5) (vs. 100 parts polyolefins). Thus, 100 parts Mirason 3530 (low-d. polyethylene) was mixed with hindered phenol 0.1, phosphite 0.1, and ethylenedimelamine (II) 0.15 part, kneaded at 160° for 5 min, then pressed at 160° and 200 atm for 3 min to obtain 0.5-mm sheets. A Cu net was sandwiched between a pair of these sheets, then pressed at 160° and 200 atm for 3 min to obtain a test specimen, which showed induction period before degradation 410 h, vs. 260 h for a composition without II.
IT 78326-99-5
RL: USES (Uses)
(polyolefins containing, for good stability against heavy metals)
RN 78326-99-5 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,10-decanediylbis- (9CI) (CA INDEX NAME)



L11 ANSWER 63 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1987 5944 CAPLUS
DN 106 5944
OREF 106 1095a,1098a
TI Dodecamethylenebismelamine for stabilizing aqueous formaldehyde solutions
IN Werle, Peter; Focke, Holger; Boes, Alwin
PA Degussa A -G , Fed Rep Ger
SO Ger Offen , 12 pp
CODEN GWXXBX
DT Patent
LA German
FAN CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	DE 3509056	A1	19860918	DE 1985-3509056	19850314 <--
	EP 194427	A2	19860917	EP 1986-100976	19860124 <--
	EP 194427	A3	19871119		
	R AT, BE, DE, FR, GB, IT, NL, SE				
	US 4683307	A	19870728	US 1986-833693	19860227 <--
	JP 61212571	A	19860920	JP 1986-53824	19860313 <--
	US 4730084	A	19880308	US 1987-51347	19870519 <--
PRAI	DE 1985-3509056	A	19850314		
	US 1986-833693	A3	19860227		

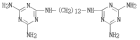
OS CASREACT 106 5944
AB In the manufacture of the title compound (I) by reaction of 2,4-diamino-6-chloro-1,3,5-triazine (II) with 1,12-diaminododecane (III) in a basic aqueous suspension, III is added as a solution in a water-miscible organic solvent Thus, heating a suspension containing 150 L water and 14.6 kg II to 60° , adding a solution containing 10 kg III in 50 L PhOH, stirring at reflux for apprx 2 h while adding 20% aqueous NaOH to keep the pH at 8-10, and stirring an addnl 1-2 h at reflux gave 94% I. An aqueous solution containing HCHO 37, MeOH 0 4, and the above-compared I 0.01% was stable for >120 days at 273 K, compared with 28 for a similar solution containing I previously prepared by the reaction of an aqueous paste of II with III in the presence of an equivalent amount of NaOH
IT 61912-28-5P, Dodecamethylenebismelamine
RL PREP (Preparation)
(manufacture of, for stabilization of aqueous formaldehyde solns.)
RN 61912-28-5 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,12-dodecanediylbis- (9CI) (CA INDEX NAME)



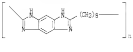
L11 ANSWER 64 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1986 609951 CAPLUS
DN 105 209951
OREF 105 33865a,33868a
TI Copolyoxymethylenes with decreased formaldehyde emission in processing
IN Amann, Herbert; Morlock, Gerhard; Schoela, Egbert
PA Degussa A -G , Fed Rep Ger
SO Ger , 7 pp
CODEN GWXXAW
DT Patent
LA German
FAN CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	DE 3518375	C1	19860717	DE 1985-3518375	19850522 <--
	EP 202530	A1	19861126	EP 1986-106149	19860506 <--
	EP 202530	B1	19900912		
	R AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
	AT 56465	T	19900915	AT 1986-106149	19860506 <--
	AU 8657540	A	19861127	AU 1986-57540	19860519 <--
	AU 575481	B2	19880728		
	BR 8602254	A	19870113	BR 1986-2254	19860519 <--
	JP 61271346	A	19861201	JP 1986-114987	19860521 <--
	JP 07030232	B	19950405		
	US 4672083	A	19870609	US 1986-865444	19860521 <--
PRAI	DE 1985-3518375	A	19850522		
	EP 1986-106149	A	19860506		

AB The title polymers contain 2,4-diamino-1,3,5-triazine derivs of polyamines as antioxidants. Thus, injection molding of a copolyoxymethylene (1 mol% oxybutylene units) containing 0 1 phr ethylenedimelamine (I) at 195° with a 90-s molding cycle resulted in the emission of 3 ppm HCHO, compared with 15 without I.
IT 61912-28-5
RL USES (Uses)
(antioxidants, for polyoxymethylenes with low formaldehyde emission)
RN 61912-28-5 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,12-dodecanediylbis- (9CI) (CA INDEX NAME)



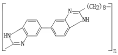
L11 ANSWER 65 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1986 534432 CAPLUS
DN 105 134432
OREF 105 21711a,21714a
TI Poly[amino-p-(hydroquinone or benzoquinone)]amides and poly(p-benzoquinono)diimidazoles of aliphatic dicarboxylic acids. V
AU Kehayoglou, A H ; Sideridou-Karayannidou, I.
CS Lab Org Chem Technol , Aristotelian Univ Thessaloniki, Thessaloniki, GR-540 06, Greece
SO Journal of Polymer Science, Part A Polymer Chemistry (1986), 24(7), 1625-32
CODEN JPACEC, ISSN 0887-624X
DT Journal
LA English
AB Poly(aminohydroquinone)amides prepared from 2,3,5,6-tetraaminohydroquinone and adipic, suberic, or sebacic dichloride were converted by mild oxidation to the corresponding poly(amino-p-benzoquinone)amides. The latter, prepared also directly from 2,3,5,6-tetraamino-p-benzoquinone, were converted by thermal cyclodehydration to the corresponding thermally stable poly(p-benzoquinono)diimidazoles. The redox polymers were characterized by elemental anal , UV and IR spectral study, inherent viscosity, solubility, and thermal anal (DSC, TGA)
IT 62008-88-2P
RL PRP (Properties), SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal stability of)
RN 62008-88-2 CAPLUS
CN Poly(1,5-dihydrobenzo[1,2-d 4,5-d']diimidazole-2,6-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)



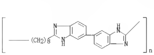
L11 ANSWER 66 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1986:207916 CAPLUS
DN 104:207916
OREF 104:32981a,32984a
TI Polybenzimidazoles
IN Ueda, Mitsuru
PA Idemitsu Kosan Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO	DATE
PI	JP 60228539	A	19851113	JP 1984-84148	19840427 <--
PRAI	JP 1984-84148		19840427		

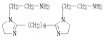
GI


I

AB High-mol.-weight polybenzimidazoles with high decomposition temps , useful as materials for elec. and electronic apparatus and machine parts, are prepared by polymerization of HO2CZCO2H [Z = arylene, p-C6H4Z1C6H4-p, (CH2)n, or 1,4-cyclohexylene, Z1 = O, S, SO2, CO, or C1-10 divalent hydrocarbyl, n = 1-10] with amines Z2(NH2)4 [Z2 = tetravalent aromatic group or Z3(C6H3-3,4)2, Z3 = O, S, SO2, or CH2] or their salts or hydrates under mild reaction conditions in the presence of P2O5 and organic sulfonic acids Thus, 1 mmol sebacic acid was polycondensed with 1 mmol 3,3'-diaminobenzidene hydrochloride at 140° for 1 5 h in 5 mL 10:1 (molar) MeSO3H-P2O5 mixture to give 99% polymer I with inherent viscosity 2.27 dL/g (0 2 g/dL, H2SO4, 30°)and decomposition temperature 370°
IT 25035-65-8P
RL IMF (Industrial manufacture), PREP (Preparation)
(manufacture of heat-resistant)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



L11 ANSWER 67 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1986 34796 CAPLUS
DN 104 34796
OREF 104 5719a,5722a
TI Study of the effect of the composition of imidazoline curing agents on their consistency and curing capacity
AU Priz, M N , Sonina, L N , Komashko, A M , Itina, B I , Stetsyuk, M F , Moshinskii, L Ya
CS USSR
SO Reaktsionnosposobn Oligomery Sint , Svoistva, Metody Issled (1983), 45-54 Editor(s) Shologon, I M Publisher NIITEKHIM, Moscow, USSR
CODEN 53TOAJ
DT Conference
LA Russian
AB Composition of imidazoline-type curing agents for epoxy resins was optimized with respect to their viscosity, stability (resistance to crystallization), and curing properties (bending, tensile, and impact strengths and Vicat softening point of cured ED-22 [25068-38-6]) The compns containing diethylenetriamine (I) bisimidazolines based on sebacic (SABI) and/or adipic (AABI) acids had increased viscosity and low stability (3-5 mo) The compns containing SABI, AABI, and I monoimidazolines (FAMI) based on C7-9 fatty acids had acceptable viscosity and were stable for 11-48 mo, but had unacceptable curing properties Use of I monoimidazoline (MMMI) based on Me methacrylate use of I monoimidazoline (MMMI) based on Me methacrylate instead of FAMI gave heterogeneous compns. with poor curing properties Only chemical modification of SABI and AABI resulted in com. curing agents UP-0639 and UP-0637, resp. Other acceptable curing agents contained MMMI, FAMI, or I monoimidazoline based on Me esters of soya fatty acids
IT 99760-98-2
RL MOA (Modifier or additive use); USES (Uses)
(crosslinking agents, for epoxy resins)
RN 99760-98-2 CAPLUS
CN 1H-Imidazole-1-ethanamine, 2,2'-(1,8-octanediyl)bis[4,5-dihydro- (CA INDEX NAME)



L11 ANSWER 68 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1986 7262 CAPLUS
DN 104 7262
OREF 104 1303a,1306a
TI Light-resistant thermosetting polymer coatings
PA Adeka Argus Chemical Co , Ltd , Japan
SO Jpn Kokai Tokkyo Koho, 7 pp
CODEN JKXXAF
DT Patent
LA Japanese
FAN CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	JP 60076573	A	19850501	JP 1983-184841	19831003 <--
PRAI	JP 1983-184841		19831003		

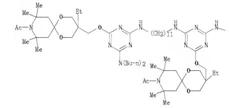
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

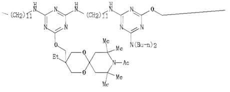
AB Title coatings contain 1-100% (based on polymers) long-lasting light stabilizers I (R = H, oxyl, alkyl, alkenyl, acyl, alkoxycarbonyl; R1 = lower alkyl; R2, R3 = R4R5N, R4O, HZ, II; R4, R5 = H, alkyl, aryl, III; R4 and R5 may jointly form alkylene or oxydialkylene group; Z = OZ1O, NR4Z1NR4, IV; Z1 = alkylene; n = 0-10), which do not retard curing with acidic hardeners. Thus, 12 parts 50% Bu acrylate-2-hydroxyethyl methacrylate-methacrylic acid-Me methacrylate copolymer (V) [25035-89-6] solution was mixed with 60% butoxylated methylolmelamine (VI) 2 5, 20% cellulose acetate butyrate [9004-36-8] 50, Al paste 5.5, Cu Phthalocyanine Blue 0.2 part, and solvents. Primer-coated steel sheets were coated with this composition and dried to form a 20-μ base film, over which a composition of 50% V 48, 60% VI 10, VII [98254-28-5] 0 15 part, and solvents was applied and dried to form a 30-μ clear topcoat. After baking 0.5 h at 140°, the coated sheets withstood 4700 h accelerated weathering before cracks appeared, vs. 2700 h using tris(2,2,6,6-tetramethyl-4-piperidinyloxy)triazine instead of VII
IT 99110-17-5
RL: USES (Uses)
(light stabilizers, for thermosetting coatings)
RN 99110-17-5 CAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3'-[1,11-undecanediylbis[imino[6-[[11-[[4-[(9-acetyl-3-ethyl-8,8,10,10-tetramethyl-1,5-dioxa-9-azaspiro[5.5]undec-3-yl)methoxy]-6-(dibutylamino)-1,3,5-triazin-2-yl]amino]undecyl]amino]-1,3,5-triazine-4,2-diyl]oxymethylene]]bis[9-acetyl-3-ethyl-8,8,10,10-tetramethyl- (9CI) (CA INDEX NAME)

L11 ANSWER 68 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

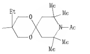
PAGE 1-A



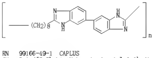
PAGE 1-B



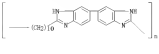
PAGE 1-C



L11 ANSWER 69 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1985:615890 CAPLUS
DN 103:215890
OREF 103:34821a,34824a
TI Poly(benzimidazole) synthesis by direct reaction of diacids and diamines
AU Ueda, Mitsuru; Sato, Masaki; Mochizuki, Amane
CS Fac. Eng., Yamagata Univ., Yonezawa, 992, Japan
SO Macromolecules (1985), 18(12), 2723-6
CODEN: MAMOBX; ISSN 0024-9297
DT Journal
LA English
AB A convenient method for the synthesis of certain poly(benzimidazoles) of high mol. weight was developed. These polymers were prepared readily by direct polycondensation of activated dicarboxylic acids with 3,3'-diaminobenzidine tetrahydrochloride [7411-49-6] using P2O5-MeSO3H [75-75-2] as condensing agent and solvent Polycondensation of bisbenzoic acids containing oxyphenylene structures with tetramine proceeded very quickly, was completed within 80 min at 140°, and produced poly(benzimidazoles) with inherent viscosities ≤5.8 dL/g The synthesis of 2-substituted benzimidazoles by the reaction of o-phenylenediamine [95-54-5] with carboxylic acids in P2O5-MeSO3H was studied in detail to demonstrate the feasibility of the reaction for polymer formation. The thermogravimetry of the aromatic poly(benzimidazoles) showed 10% weight loss in air and N at 470 and 540°, resp
IT 25035-65-8P 99166-49-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal properties of)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



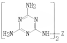
RN 99166-49-1 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,10-decanediyl) (9CI) (CA INDEX NAME)



L11 ANSWER 70 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1985:472156 CAPLUS
DN 103:72156
OREF 103:11625a,11628a
TI Triazine adducts
PA Ube Industries, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE	
PI	JP 60056968	A	19850402	JP 1983-162634	19830906	<--
	JP 03065346	B	19911011			
PRAI	JP 1983-162634		19830906			

GI

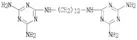


I

AB Adducts of 1 mol I (Z = C1-12 hydrocarbondiyl) and 1 or 2 mol cyanuric acid (II) and/or isocyanuric acid (III), flame retardants for thermoplastic resins, are prepared by mixing aqueous solns. or dispersions of I (di)mineral acid salts with aqueous solns. or dispersions of alkali salts of II and/or III. Thus, aqueous dispersion of ethylenedimelamine hydrochloride was mixed with an aqueous dispersion of cyanuric acid monosodium salt to precipitate a 1:1 M adduct (IV) [93679-13-1] of ethylenedimelamine and II. An injection molding prepared from nylon 6 [25038-54-4] 94, IV 6, and carbon black 0.5 part had flame retardance (UL-94) V-0 and no bleeding out after 10 days at 40° and 95% relative humidity.
IT 97612-10-7
RL: USES (Uses)
(fireproofing agents, for nylon 6)
RN 97612-10-7 CAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with N,N'''-1,12-dodecanediylbis[1,3,5-triazine-2,4,6-triamine] (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 61912-28-5
CMF C18 H34 N12



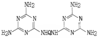
L11 ANSWER 70 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
CM 2

CRN 108-80-5
CMF C3 H3 N3 O3

L11 ANSWER 71 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1985:132081 CAPLUS
DN 102:132081
OREF 102:20735a,20738a
TI Triazine adducts
PA Ube Industries, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 2

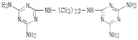
	PATENT NO	KIND	DATE	APPLICATION NO	DATE	
PI	JP 59186965	A	19841023	JP 1983-59958	19830407	<--
	JP 03065345	B	19911011			
	US 4574154	A	19860304	US 1983-566195	19831228	<--
	US 4663372	A	19870505	US 1985-776504	19851101	<--
PRAI	JP 1982-227979	A	19821228			
	JP 1983-59958	A	19830407			
	US 1983-566195	A3	19831228			

GI



I

AB Triazine adducts were prepared by reaction of triazine compds. I [Q = CH2CH2, (CH2)6, (CH2)12] with cyanuric acid (II) or isocyanuric acid. The adducts so prepared are useful as flame-resisting agents for thermally plasticizable resins. Thus, a mixture of 800 mL H2O, 27.8 g I (Q = CH2CH2) (III), and 12.9 g II was stirred 10 h at 100° to give 40.2 g a 1:1 M adduct of II-III.
IT 61912-28-5
RL: PROC (Process)
(addition of, with cyanuric acid)
RN 61912-28-5 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,12-dodecanediylbis- (9CI) (CA INDEX NAME)

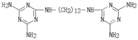


IT 93697-97-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, for flame retardants)
RN 93697-97-3 CAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with N,N'''-1,12-dodecanediylbis[1,3,5-triazine-2,4,6-triamine] (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 61912-28-5
CMF C18 H34 N12

L11 ANSWER 71 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



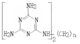
CM 2

CRN 108-80-5
CMF C3 H3 N3 O3

L11 ANSWER 72 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1985 6552 CAPLUS
DN 102 6552
OREF 102 1191a,1194a
TI Adducts of triazine compounds and cyanuric acid
PA Ube Industries, Ltd , Japan
SO Jpn Kokai Tokkyo Koho, 8 pp
CODEN JKXXAF
DT Patent
LA Japanese
FAN CNT 2

	PATENT NO	KIND	DATE	APPLICATION NO	DATE	
PI	JP 59122479	A	19840714	JP 1982-227979	19821228	<--
	JP 61053348	B	19861117			
	US 4574154	A	19860304	US 1983-566195	19831228	<--
	US 4663372	A	19870505	US 1985-776504	19851101	<--
PRAI	JP 1982-227979	A	19821228			
	JP 1983-59958	A	19830407			
	US 1983-566195	A3	19831228			

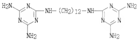
OS CASREACT 102 6552; MARPAT 102 6552
GI


I

AB Adducts of triazine compds I (n = 2 or 12) and cyanuric acid (II) were prepared and used as flame-resistant polyamide compns. Thus, 6.45 g II was added to 13 9 g I (n = 2) in Me2SO at 100° and the mixture stirred 30 min at 100° to precipitate 18 5 g 1:1 II-I (n =2) adduct.
IT 93697-97-3P
RL SPN (Synthetic preparation); PREP (Preparation)
(preparation and flame-retardant activity of)
RN 93697-97-3 CAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with N,N'''-1,12-dodecanediylbis[1,3,5-triazine-2,4,6-triamine] (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 61912-28-5
CMF C18 H34 N12

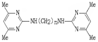


CM 2

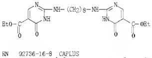
L11 ANSWER 72 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

CRN 108-80-5
CMF C3 H3 N3 O3

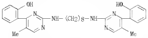
L11 ANSWER 73 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1984 591823 CAPLUS
DN 101 191823
OREF 101 29067a,29070a
TI Methods for obtaining bisaminopyrimidines bridged by a polymethylene chain
AU Menichi, Gabriel; Hubert-Habart, Michel
CS Sect Phys Chim , Inst Curie, Paris, 75231, Fr.
SO Journal of Heterocyclic Chemistry (1984), 21(1), 209-13
CODEN JHTCAD, ISSN 0022-152X
DT Journal
LA French
OS CASREACT 101 191823
GI


I

AB N(2),N'(2')-αω-Alkandiylbis(2-aminopyrimidines) e.g. I (n = 3, 4, 6, 8) are the sole products obtained by condensation of several polymethylene bisguanidines on Et ethoxymethylenemalonate, 3-methylchromone, flavone, acetylacetone, acetylacetaldehyde dimethylacetal and 3-acetyl-2-ethylbenzofuran
IT 92736-12-4P 92736-16-8P 92736-20-4P
92736-24-8P 92736-28-2P
RL SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 92736-12-4 CAPLUS
CN 5-Pyrimidinecarboxylic acid, 2,2'-(1,8-octanediyldiimino)bis[1,4-dihydro-4-oxo-, diethyl ester (9CI) (CA INDEX NAME)

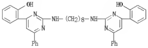


RN 92736-16-8 CAPLUS
CN Phenol, 2,2'-[1,8-octanediylbis[imino(5-methyl-2,4-pyrimidinediyl)]]bis- (9CI) (CA INDEX NAME)

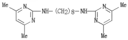


RN 92736-20-4 CAPLUS
CN Phenol, 2,2'-[1,8-octanediylbis[imino(6-phenyl-2,4-pyrimidinediyl)]]bis- (9CI) (CA INDEX NAME)

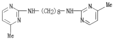
L11 ANSWER 73 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



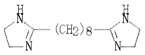
RN 92736-24-8 CAPLUS
CN 1,8-Octanediamine, N,N'-bis(4,6-dimethyl-2-pyrimidinyl)- (9CI) (CA INDEX NAME)



RN 92736-28-2 CAPLUS
CN 1,8-Octanediamine, N,N'-bis(4-methyl-2-pyrimidinyl)- (9CI) (CA INDEX NAME)



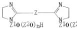
L11 ANSWER 74 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1984:455954 CAPLUS
DN 101:55954
OREF 101:8699a,8702a
TI Effect of the polarity of acrylonitrile rubbers on the creep of epoxy polymers
AU Kochergin, Yu. S.; Kulik, T. A.; Zaitsev, Yu. S.; Askadskii, A. A.
CS USSR
SO Plasticheskie Massy (1984), (5), 37-8
CODEN: PLMSAI; ISSN: 0554-2901
DT Journal
LA Russian
AB Relaxation properties of epoxy polymer ED-20 [25068-38-6] modified with liquid carboxy-terminated rubbers SKD, SKN-10, or SKN-30 (acrylonitrile content 0, 9.5, or 27.3%, resp.) and cured with UP-0639 [7516-99-6] were studied in creep deformation tests. The deformability of modified ED-20 increased with increasing acrylonitrile content of the rubber modifier, especially at high temps. The decrease in elasticity modulus of ED-20 in the glassy state with increasing crosslinking degree was related to a decrease in packing d. of the chains, i.e., a decrease in mol. interaction. The equilibrium deformation and the relaxation capacity of the modified epoxy resin increased with increasing testing temperature
IT 7516-99-6
RL: USES (Uses)
(crosslinking with, of nitrile rubber-modified epoxy resins)
RN 7516-99-6 CAPLUS
CN 1H-Imidazole, 2,2'-(1,8-octanediyl)bis[4,5-dihydro- (CA INDEX NAME)



L11 ANSWER 75 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1984:425078 CAPLUS
DN 101:25078
OREF 101:3971a,3974a
TI Compositions for coating
PA Itoh Oil Mfg. Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

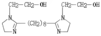
	PATENT NO	KIND	DATE	APPLICATION NO	DATE	
PI	JP 58179271	A	19831020	JP 1982-61621	19820412	<--
	JP 01012310	B	19890228			
PRAI	JP 1982-61621		19820412			

GI

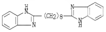


I

AB The title water-based 1-component epoxy resin compns. contain as crosslinkers bisimidazolines (I; Z = dicarboxylic acid-residue, Z1, Z2 = alkylene, n ≥ 0). Thus, 0.5 mol Versadyme (dimer acid) was heated 3 h at 150-180° with 1.5 mol N-(2-hydroxyethyl)ethylenediamine (1 mol H2O distilled) followed by a temperature increase to 210° and a decrease in pressure (1 mol H2O removed) to give 345 g I (Z = C34H62-66, Z1, Z2 = CH2CH2, n = 0) (II). II (35 g) was heated 30 min at 60-8° with 125 g 80% solution of Epikote 1001 [25068-38-6] in Butyl cellosolve and the product was neutralized with 8 g 50% HOAc and diluted with 188 g water to give 356 g coating composition (resin 38%, pH 6.6) which did not sep. after 2-mo storage. Applying on a steel sheet and baking 30 min at 130° gave a 20-μ coating.
IT 90745-66-7
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents, for epoxy resins in aqueous coating compns.)
RN 90745-66-7 CAPLUS
CN 1H-Imidazole-1-ethanol, 2,2'-(1,8-octanediyl)bis[4,5-dihydro- (CA INDEX NAME)



L11 ANSWER 76 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1984:27418 CAPLUS
DN 100:27418
OREF 100:4229a,4232a
TI Corrosion of steel in acid media inhibited by benzimidazole derivatives
AU Makovei, G. L.; Koroleva, V. R.; Kurmakova, I. N.
CS Chernigov Fil., Kiev Politekh. Inst., Chernigov, USSR
SO Zashchita Metallov (1983), 19(6), 962-4
CODEN: ZAMEA9; ISSN: 0044-1856
DT Journal
LA Russian
AB A number of polymethylenebis-2,2-benzimidazoles with 2, 3, 4, 7 and 8 methylene groups in the mol. were studied as inhibitors of acid corrosion of steel St.3 in HCl. The corrosion rate was determined by the weight-loss method over a period of 20 h at 25 ±0.1° in nonagitated, aerated 2N HCl with addns. of polymethylenebis-2,2-benzimidazoles on samples of steel (50 + 30 + 4 mm). The protective effect at different concns. of the studied substances is presented. With increases in the number of methylene groups, the effect increases.
IT 5233-14-7
RL: PRP (Properties)
(corrosion inhibitor, for steel in acid media)
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)

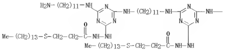


L11 ANSWER 77 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1983:523614 CAPLUS
DN 99:123614
OREF 99:19049a,19052a
TI [(Alkylthiopropionyl)hydrazino]triazines and synthetic resin compositions
IN Minagawa, Motonobu; Haruna, Tohru; Takahashi, Masayuki
PA Adeka Argus Chemical Co., Ltd., Japan
SO Eur. Pat. Appl., 75 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE	
PI	EP 81235	A2	19830615	EP 1982-111322	19821207	<--
	EP 81235	A3	19840328			
	EP 81235	B1	19870415			
	R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE					
	JP 58098344	A	19830611	JP 1981-197569	19811208	<--
	JP 01017505	B	19890330			
	US 4469828	A	19840904	US 1982-443363	19821122	<--
	AT 26573	T	19870515	AT 1982-111322	19821207	<--
PRAI	JP 1981-197569	A	19811208			
	EP 1982-111322	A	19821207			

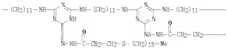
OS MARPAT 99:123614
AB [(Alkylthiopropionyl)hydrazino]triazines are prepared and are good heat stabilizers for polyolefins. Thus, polypropylene [9003-07-0] 100, Ca stearate 0.2, stearyl β-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate (antioxidant) 0.1, and 2,4,6-tris[(3-dodecylthiopropionyl)hydrazino]-s-triazine (I) [87085-16-3] 0.2 part were mixed, extruded at 230-50°, and molded into test pieces at 250°. The pieces were heated at 170° to give 480 h to failure compared with 240 h for a control containing prior art bis(dodecylthiopropionyl)hydrazine instead of I. The stabilizers are prepared, e.g., by reaction of cyanuric chloride with alkylthiopropionic acid hydrazide
IT 87085-26-5
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(heat stabilizers, for polyolefins)
RN 87085-26-5 CAPLUS
CN Propanoic acid, 3-(tetradecylthio)-, 2,2'-[1,11-undecanediylbis[imino[6-[[11-[[4-[[11-[[4-[(11-aminoundecyl)amino]-6-[2-[1-oxo-3-(tetradecylthio)propyl]hydrazino]-1,3,5-triazin-2-yl]amino]undecyl]amino]-6-[2-[1-oxo-3-(tetradecylthio)propyl]hydrazino]-1,3,5-triazin-2-yl]amino]undecyl]amino]-1,3,5-triazine-4,2-diyl]]]dihydrazide (9CI) (CA INDEX NAME)

PAGE 1-A

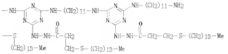


L11 ANSWER 77 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B



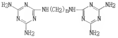
PAGE 1-C



L11 ANSWER 78 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1983:424426 CAPLUS
DN 99:24426
OREF 99:3942h,3943a
TI Bismelamines
IN Werle, Peter; Focke, Holger; Popp, Klaus; Merk, Wolfgang
PA Degussa A.-G., Fed. Rep. Ger.
SO Ger. Offen., 11 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

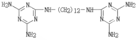
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3143920	A1	19830511	DE 1981-3143920	19811105 <--
	JP 58150574	A	19830907	JP 1982-190917	19821101 <--
	US 4492643	A	19850108	US 1982-438349	19821101 <--
	DK 8204877	A	19830506	DK 1982-4877	19821103 <--
	EP 79037	A2	19830518	EP 1982-110116	19821103 <--
	EP 79037	A3	19840321		
	EP 79037	B1	19861029		
	R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
	AT 23154	T	19861115	AT 1982-110116	19821103 <--
PRAI	DE 1981-3143920	A	19811105		
	EP 1982-110116	A	19821103		

OS MARPAT 99:24426
GI



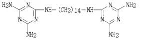
I

AB The preparation of alkenebismelamines I (n = 11-16) is described. The I are useful as stabilizers for aqueous HCHO [50-00-0] solns. Thus, I (n = 12) [61912-28-5] was prepared from H2N(CH2)12NH2 [2783-17-7] and 2,4-diamino-6-chloro-s-triazine [3397-62-4]. An aqueous solution containing HCHO 50, MeOH 0.55, and I (n = 12) 0.020% was stable for 60 days at 35°.
IT 61912-28-5P 86293-30-3P
RL: PREP (Preparation)
(preparation and stabilization of formaldehyde solns. by)
RN 61912-28-5 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,12-dodecanediylbis- (9CI) (CA INDEX NAME)



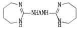
RN 86293-30-3 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,14-tetradecanediylbis- (9CI) (CA INDEX NAME)

L11 ANSWER 78 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



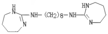
L11 ANSWER 79 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1983:215574 CAPLUS
DN 98:215574
OREF 98:32781a,32784a
TI Macroheterocycles. Part II. Synthesis and bacteriostatic activity of 2,2'-(polymethylenediamino)- and 2,2'-(polyhydroxyethylenediamino)bis(4,5,6,7-tetrahydro-1,3-diazepinium iodides)
AU Bogatskii, A. V.; Nazarov, E. I.; Luk'yanenko, N. G.; Konup, I. P.; Kirichenko, T. I.; Afanas'eva, T. A.; Puchkov, E. O.
CS Fiz.-Khim. Inst., Odessa, USSR
SO Khimiko-Farmatsevticheskii Zhurnal (1983), 17(3), 308-13
CODEN: KHFZAN; ISSN: 0023-1134
DT Journal
LA Russian
GI

I



II

AB Reaction of I·HI with the appropriate diamine gave II [A = (CH2)n (n = 2-4, 6, 8), (CH2CH2O)nCH2CH2 (n = 1-3)]. Min. bacteriostatic doses of II were determined.
IT 82911-05-5P
RL: SPN (Synthetic preparation), PREP (Preparation)
(preparation of)
RN 82911-05-5 CAPLUS
CN 1,8-Octanediamine, N,N'-bis(4,5,6,7-tetrahydro-1H-1,3-diazepin-2-yl)-, dihydriodide (9CI) (CA INDEX NAME)



●2 HI

AN 1982:163675 CAPLUS
DN 96:163675
OREF 96:26967a,26970a
TI Polyalkylpiperidine derivatives of s-triazine
IN Rody, Jean
PA Ciba-Geigy Corp. , USA
SO U.S., 11 pp. Cont.-in-part of U.S. Ser. No. 8,135, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 3

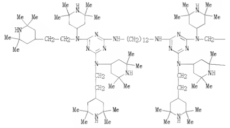
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4294963	A	19811013	US 1979-57673	19790716 <--
PRAI	CH 1978-1402	A	19780208		
	US 1979-8135	A2	19790131		

AB Reaction products of polyalkylpiperidine derivs. of 1,3,5-triazines with dihalides or polyepoxides are stabilizers, especially light stabilizers, with low volatility and migration. Thus, stirring 28.5 g N,N',N''-tributyl-N,N',N''-tris(2,2,6,6-tetramethyl-4-piperidinyl)melamine [71981-32-3], 4 g 1,4-butanediol diglycidyl ether [2425-79-8], and 100 mL $C_8H_{17}OH$ 10 h at 160° and stripping in vacuo gave a slightly yellow adduct [80459-61-6].
IT 75944-84-2 75951-26-7
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(light stabilizers, for polymers)
RN 75944-84-2 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N''-1,12-dodecanediylbis[N',N''-bis(2,2,6,6-tetramethyl-4-piperidinyl)-N',N''-bis[2-(2,2,6,6-tetramethyl-4-piperidinyl)ethyl]-, polymer with 2,2'-[1,4-butanediylbis(oxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

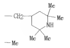
CM 1

CRN 75944-83-1
CMF C98 H186 N20

PAGE 1-A

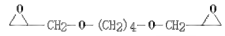


PAGE 1-B



CM 2

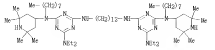
CRN 2425-79-8
CMF C10 H18 O4



RN 75951-26-7 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N''-1,12-dodecanediylbis[N',N'-diethyl-N''-octyl-N''-(2,2,6,6-tetramethyl-4-piperidinyl)-, polymer with 2,2'-[1,4-butanediylbis(oxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

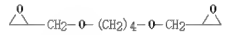
CM 1

CRN 71981-39-0
CMF C60 H116 N14



CM 2

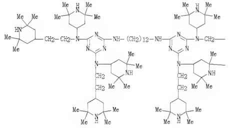
CRN 2425-79-8
CMF C10 H18 O4



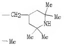
IT 75944-83-1P

RL: PREP (Preparation)
(prepn. of)
RN 75944-83-1 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N''-1,12-dodecanediylbis[N',N''-bis(2,2,6,6-tetramethyl-4-piperidinyl)-N',N''-bis[2-(2,2,6,6-tetramethyl-4-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

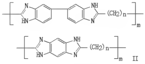
PAGE 1-A



PAGE 1-B



AN 1982:163449 CAPLUS
DN 96:163449
OREF 96:26931a,26934a
TI On the crystallinity of poly(alkylbenzimidazole) salts
AU Aharoni, Shaul M.
CS Allied Corp., Morristown, NJ, 07960, USA
SO Journal of Applied Polymer Science (1982), 27(3), 989-95
CODEN: JAPNAB; ISSN: 0021-8995
DT Journal
LA English
GI



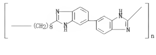
I

II

AB Poly(alkylenedibenzimidazoles) (I, n = 5-8) and poly(alkylenebenzodiimidazoles) (II, n = 5-8) were sensitized. Salts were prepared from these polymers and strong acids with pK ≤4.00. The polymers having an even number of methylene groups per repeat unit tended to form crystalline salts while those polymers having an odd number of methylene groups formed only amorphous salts. The crystalline salts of II were more crystalline than those of I.
IT 55993-27-6 81545-83-7 81545-84-8
81545-85-9 81545-86-0 81545-87-1
81545-88-2 81545-89-3 81557-58-6
81557-59-7
RL: PRP (Properties)
(crystallinity of)
RN 55993-27-6 CAPLUS
CN Formic acid, compd. with poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 25035-65-8
CMF (C22 H24 N4)n
CCI PMS



CM 2

CRN 64-18-6
CMF C H2 O2

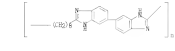
L11 ANSWER 81 OF 309 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

O=CH-OH

RN 81545-63-7 CAPLUS
CN Butanedioic acid, tetrafluoro-, compd with poly[(5,5'-bi-1H-benzimidazole)-2,2'-diyl-1,8-octanediyl] (9CI) (CA INDEX NAMES)

CM 1

CRN 26063-63-6
CMF (C22 H24 N4)n
CCI PMS



CM 2

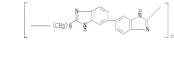
CRN 377-38-8
CMF C4 H2 F4 O4

HO2C-CF2-CF2-CO2H

RN 81545-64-8 CAPLUS
CN Hexanedioic acid, octafluoro-, compd with poly[(5,5'-bi-1H-benzimidazole)-2,2'-diyl-1,8-octanediyl] (9CI) (CA INDEX NAMES)

CM 1

CRN 26063-63-6
CMF (C22 H24 N4)n
CCI PMS



CM 2

CRN 336-08-3
CMF C6 H2 F8 O4

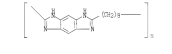
L11 ANSWER 81 OF 309 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

O=CH-OH

RN 81545-67-1 CAPLUS
CN Butanedioic acid, tetrafluoro-, compd with poly(1,5-dihydrobenzo[1,2-d:4,5-d']diimidazole-2,6-diyl-1,8-octanediyl) (9CI) (CA INDEX NAMES)

CM 1

CRN 62008-88-2
CMF (C16 H20 N4)n
CCI PMS



CM 2

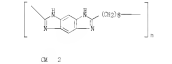
CRN 377-38-8
CMF C4 H2 F4 O4

HO2C-CF2-CF2-CO2H

RN 81545-68-2 CAPLUS
CN Pentanedioic acid, hexafluoro-, compd with poly(1,5-dihydrobenzo[1,2-d:4,5-d']diimidazole-2,6-diyl-1,8-octanediyl) (9CI) (CA INDEX NAMES)

CM 1

CRN 62008-88-2
CMF (C16 H20 N4)n
CCI PMS



CM 2

CRN 376-73-8
CMF C5 H2 F6 O4

HO2C-(CF2)3-CO2H

RN 81545-69-3 CAPLUS

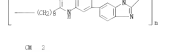
L11 ANSWER 81 OF 309 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

HO2C-(CF2)4-CO2H

RN 81545-65-9 CAPLUS
CN Poly[(5,5'-bi-1H-benzimidazole)-2,2'-diyl-1,8-octanediyl], phosphate (9CI) (CA INDEX NAMES)

CM 1

CRN 26063-63-6
CMF (C22 H24 N4)n
CCI PMS



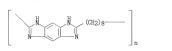
CM 2

CRN 7664-38-2
CMF H3 O4 P

RN 81545-66-0 CAPLUS
CN Formic acid, compd. with poly(1,5-dihydrobenzo[1,2-d:4,5-d']diimidazole-2,6-diyl-1,8-octanediyl) (9CI) (CA INDEX NAMES)

CM 1

CRN 62008-88-2
CMF (C16 H20 N4)n
CCI PMS



CM 2

CRN 64-18-6
CMF C H2 O2

L11 ANSWER 81 OF 309 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)
CN Poly(1,6-dihydrobenzo[1,2-d:4,5-d']diimidazole-2,6-diyl-1,8-octanediyl), phosphate (9CI) (CA INDEX NAMES)

CM 1

CRN 62008-88-2
CMF (C16 H20 N4)n
CCI PMS

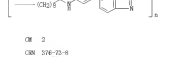
CM 2

CRN 7664-38-2
CMF H3 O4 P

RN 81557-58-6 CAPLUS
CN Pentanedioic acid, hexafluoro-, compd with poly[(5,5'-bi-1H-benzimidazole)-2,2'-diyl-1,8-octanediyl)] (9CI) (CA INDEX NAMES)

CM 1

CRN 26063-63-6
CMF (C22 H24 N4)n
CCI PMS



CM 2

CRN 376-73-8
CMF C5 H2 F6 O4

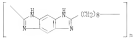
HO2C-(CF2)3-CO2H

RN 81557-59-7 CAPLUS
CN Hexanedioic acid, octafluoro-, compd with poly(1,5-dihydrobenzo[1,2-d:4,5-d']diimidazole-2,6-diyl-1,8-octanediyl) (9CI) (CA INDEX NAMES)

L11 ANSWER 81 OF 309 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

CM 1

CRN 62066-68-0
CMF (C8 H2 I2 N4)n
CCI PMS



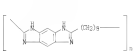
CM 2

CRN 334-48-5
CMF C6 H2 F9 O4

HO2C-(CF2)4-CO2H

IT 208063-62-8P 62066-68-2P
RL: PEP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and intrinsic viscosity of)
RN 208063-62-8 CAPLUS
CN Poly(2,8'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)

RN 62066-68-2 CAPLUS
CN Poly(4,4-dihydrothieno[3,2-d:4,5-d']diimidazole-2,6-diyl-1,8-octanediyl)
(9CI) (CA INDEX NAME)



L11 ANSWER 82 OF 309 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1962:52434 CAPLUS
DN 56:52434
OREF 56:9811a,9814a
TI Asymmetric ultrafiltration membrane
IN Wrasidlo, Wolfgang J.
PA Brunswick Corp., USA
SO Ger. Pat. Appl., 30 pp.
DT Patent
LA English
PAN.CNT 1

PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI EP 37720	A2	19811014	EP 1961-300490	19610406 <--
EP 37720	A3	19810610		
EP 37720	B1	19850911		
R: DE, FR, GB, IT, SE				
BR 8100695	A	19811013	BR 1961-2065	19610406 <--
CA 1168906	A1	19840529	CA 1961-374265	19610406 <--
JP 56161714	A	19811136	JP 1961-63767	19610406 <--
JP 59003584	B	19840127		
JP 60122007	A	19850629	JP 1984-68360	19840404 <--
PRAI US 1980-138518	A	19800409		

AB Asym. ultrafiltration membranes having water permeability >0.2 cm/min/psi and an open honeycomb structure with an integral skin are prepared from a polymeric material having glass temperature (Tg) >70° and tensile strength and flexibility. Thus, Cela-Set 500 (9.0 g., 30%DMF-diluted polyimide from 3,3',4,4'-benzophenonetetracarboxylic dianhydride and 4,4'-methylenedianiline) was dissolved in DMF to give a 7% solution, which was cast on a glass plate. The wet film was immersed 2 min in water to give a microporous membrane having water permeability 2 cm/min-psi and a mol. weight cut off 25,000 for globular solutes (i.e. proteins).

IT 25085-68-9P
RL: PREP (Preparation)
(ultrafiltration membranes, manufacture of)
RN 25085-68-9 CAPLUS
CN Poly(2,8'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)

L11 ANSWER 83 OF 309 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1962:52434 CAPLUS
DN 56:52434
OREF 56:9811a,9814a
TI Asymmetric ultrafiltration membrane
IN Wrasidlo, Wolfgang J.
PA Brunswick Corp., USA
SO Ger. Pat. Appl., 30 pp.
DT Patent
LA English
PAN.CNT 1

PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI EP 37720	A2	19811014	EP 1961-300490	19610406 <--
EP 37720	A3	19810610		
EP 37720	B1	19850911		
R: DE, FR, GB, IT, SE				
BR 8100695	A	19811013	BR 1961-2065	19610406 <--
CA 1168906	A1	19840529	CA 1961-374265	19610406 <--
JP 56161714	A	19811136	JP 1961-63767	19610406 <--
JP 59003584	B	19840127		
JP 60122007	A	19850629	JP 1984-68360	19840404 <--
PRAI US 1980-138518	A	19800409		

AB Asym. ultrafiltration membranes having water permeability >0.2 cm/min/psi and an open honeycomb structure with an integral skin are prepared from a polymeric material having glass temperature (Tg) >70° and tensile strength and flexibility. Thus, Cela-Set 500 (9.0 g., 30%DMF-diluted polyimide from 3,3',4,4'-benzophenonetetracarboxylic dianhydride and 4,4'-methylenedianiline) was dissolved in DMF to give a 7% solution, which was cast on a glass plate. The wet film was immersed 2 min in water to give a microporous membrane having water permeability 2 cm/min-psi and a mol. weight cut off 25,000 for globular solutes (i.e. proteins).

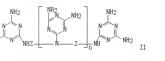
IT 25085-68-9P
RL: PREP (Preparation)
(ultrafiltration membranes, manufacture of)
RN 25085-68-9 CAPLUS
CN Poly(2,8'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)

L11 ANSWER 84 OF 309 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1961:462080 CAPLUS
DN 55:62080
OREF 55:12085a,12086a
TI Polyamide fiberroof compositions
PA Ube Industries, Ltd., Japan
SO 3pn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAP
DT Patent
LA Japanese
PAN.CNT 1

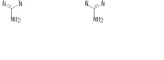
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 6002547	A	19610402	JP 1959-98790	19590731 <--
JP 69033789	B	19690610		
PRAI JP 1959-98790	A	19590731		

GI



AB Polyamides, e.g., nylon 6 [25038-54-4], nylon 66 [32131-17-2], and nylon-66/610 [25190-90-6], containing 5-65 parts dimelamine derivs. (I; Z = C2-18 hydrocarbondiyl), e.g., I (Z = CH2CH2) [42455-78-5] and I (Z = (CH2)10) [78328-99-2], or polymelamine derivs. (II; Z = C1-18 hydrocarbondiyl, n = 1-5), e.g., diethylenetrimelamine [78326-97-5] and hexaethylenetetramelamine [78326-98-6], per 100 parts polymer as fireproofing agents could be molded without fouling of metal mold, foaming, or blooming of the melamine derivative

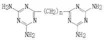
IT 78326-99-7P
RL: PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)
(fireproofing agents, for polyamides, for improved molding properties)
RN 78326-99-7 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N''-1,10-decanediylbis- (9CI) (CA INDEX NAME)



L11 ANSWER 85 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1981:175174 CAPLUS
DN 94:175174
OREF 94:28631a,28634a
TI Bisguanamine for stabilizing formaldehyde solutions
IN Werle, Peter; Merk, Wolfgang; Pohl, Gerhard; Hoevels, Friedhelm
PA Degussa, Fed. Rep. Ger.
SO Ger. Offen., 14 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	DE 2919496	A1	19801204	DE 1979-2919496	19790515	<--
	DE 2919496	C2	19870903			
	NO 8000556	A	19801117	NO 1980-556	19800227	<--
	NO 158503	B	19880613			
	NO 158503	C	19880921			
	NL 8001399	A	19801118	NL 1980-1399	19800307	<--
	FR 2456735	A1	19801212	FR 1980-6732	19800326	<--
	FR 2456735	B1	19841228			
	DK 8001672	A	19801116	DK 1980-1672	19800418	<--
	DK 149453	B	19860616			
	DK 149453	C	19861117			
	US 4339578	A	19820713	US 1980-146247	19800505	<--
	IL 60019	A	19830930	IL 1980-60019	19800507	<--
	GB 2056436	A	19810318	GB 1980-15309	19800508	<--
	GB 2056436	B	19830525			
	AT 8002525	A	19830115	AT 1980-2525	19800512	<--
	AT 372070	B	19830825			
	BE 883282	A1	19801113	BE 1980-47161	19800513	<--
	SE 8003652	A	19801116	SE 1980-3652	19800514	<--
	SE 435181	B	19840910			
	SE 435181	C	19841220			
	BR 8002985	A	19801223	BR 1980-2985	19800514	<--
	CA 1120477	A1	19820323	CA 1980-351925	19800514	<--
	CH 642363	A5	19840413	CH 1980-3798	19800514	<--
	JP 55162778	A	19801218	JP 1980-63459	19800515	<--
	JP 62041593	B	19870903			
	US 4389333	A	19830621	US 1982-346255	19820205	<--
PRAI	DE 1979-2919496	A	19790515			
	US 1980-146247	A3	19800505			

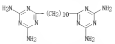
OS MARPAT 94:175174
GI



I

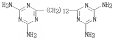
AB Alkylenebis(guanamines) I (n = 10-20) were prepared. Thus NC(CH2)10CN was treated with dicyandiamide in the presence of base to give 96% I (n = 10). Formalin containing 0.3% MeOH and 0.03% I (n = 10) at pH 4.2 was stable for >120 days at 0°.

L11 ANSWER 85 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
IT 77442-84-3P 77442-85-4P 77442-86-5P
77442-87-6P 77442-88-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and stabilization of formaldehyde with)
RN 77442-84-3 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,10-decanediyl)bis- (CA INDEX NAME)

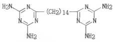


RN 77442-85-4 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,11-undecanediyl)bis- (CA INDEX NAME)

RN 77442-86-5 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,12-dodecanediyl)bis- (CA INDEX NAME)

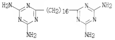


RN 77442-87-6 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,14-tetradecanediyl)bis- (CA INDEX NAME)

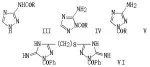


RN 77442-88-7 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,16-hexadecanediyl)bis- (CA INDEX NAME)

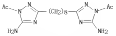
L11 ANSWER 85 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L11 ANSWER 86 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1981:102534 CAPLUS
DN 94:102534
OREF 94:16711a,16714a
TI Acyl derivatives of 3-amino-1,2,4-triazole
AU Fidler, Zh. N.; Shibanova, E. F.; Makerov, P. V.; Kalikhman, I. D.; Shulunova, A. M.; Sarapulova, G. I.; Klyba, L. V.; Vitkovskii, V. Yu.; Chipanina, N. N.; et al.
CS Irkutsk. Inst. Org. Khim., Irkutsk, 664033, USSR
SO Khimiya Geterotsiklicheskikh Soedinenii (1980), (10), 1414-19
CODEN: KGSSAQ; ISSN: 0453-8234
DT Journal
LA Russian
GI

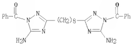


AB Acylation of 3-amino-1,2,4-triazole (I) by RCOCl (II; R = 1-C3F7, CCl3, CHF2) gave III, probably via rearrangement of N-acyl-3-amino-1,2,4-triazoles. Acylation of I by II (R = Me, Et, Pr, Ph) gave IV; acylation by II (R = MeO, EtO) give mixts. of IV and V. Intramol. H bonding was observed in IV between the NH2 and CO groups. The imino tautomers of IV and V were also present in the solid state. IV and V isomerized to III on heating; the acylimino forms of III were also present. Isomerization occurred via an intermol. mechanism. For III a linear relation was found between the IR frequencies of the CO group and substituent consts. of R. VI was also examined. IR, NMR and mass-spectral data were discussed.
IT 76803-18-4P 76803-19-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and spectra of, tautomerism in relation to)
RN 76803-18-4 CAPLUS
CN 1H-1,2,4-Triazol-5-amine, 3,3'-(1,8-octanediyl)bis[1-acetyl- (9CI) (CA INDEX NAME)



RN 76803-19-5 CAPLUS
CN 1H-1,2,4-Triazol-5-amine, 3,3'-(1,8-octanediyl)bis[1-benzoyl- (9CI) (CA INDEX NAME)

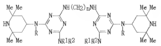
L11 ANSWER 86 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L11 ANSWER 87 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1981:16608 CAPLUS
DN 94:16608
OREF 94:2791a,2794a
TI Piperidyl triazine derivatives and their use as stabilizers for polymers
IN Rody, Jean
PA Ciba-Geigy A.-G., Switz.
SO Eur. Pat. Appl., 34 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 13682	A1	19800806	EP 1979-102300	19790706 <--
	EP 13682	B1	19811014		
	R: CH, DE, FR, GB, IT				
	EP 3542	A1	19790822	EP 1979-100244	19790129 <--
	EP 3542	B1	19811125		
	R: BE, CH, DE, FR, GB, IT, NL				
PRAI	EP 1979-100244	A	19790129		
	CH 1979-6065	A	19790628		
	CH 1978-1402		19780208		

GI



II

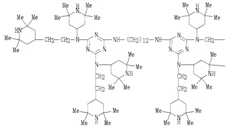
AB Reaction products prepared from 1,4-diglycidyloxybutane (I) and compds. II with R and R1 = C2-8 alkyl or 2-(2,2,6,6-tetramethyl-4-piperidyl)ethyl, R2 = Et or 2,2,6,6-tetramethyl-4-piperidyl, and n = 6 or 12 are useful as light stabilizers for polymers. Thus, 4.0 g I, 44.6 g II (R = R1 = Bu, R2 = 2,2,6,6-tetramethyl-4-piperidyl, n = 6), and 100 mL BuOCH2CH2OH were heated at 160° for 10 h to prepare a powdered stabilizer which was mixed (0.25%) with polypropylene [9003-07-0] containing 0.2% octadecyl β-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate. The mixture was stable for 5500 h in UV light, compared with 710 h without the stabilizer.
IT 75944-84-2 75951-26-7
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(light stabilizers, for polymers)
RN 75944-84-2 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,12-dodecanediylbis[N',N''-bis(2,2,6,6-tetramethyl-4-piperidinyl)-N',N''-bis[2-(2,2,6,6-tetramethyl-4-piperidinyl)ethyl]-, polymer with 2,2'-[1,4-butanediylbis(oxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

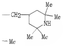
CRN 75944-83-1
CMF C98 H186 N20

L11 ANSWER 87 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A

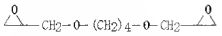


PAGE 1-B



CM 2

CRN 2425-79-8
CMF C10 H18 O4

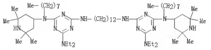


RN 75951-26-7 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,12-dodecanediylbis[N',N'-diethyl-N''-octyl-N''-(2,2,6,6-tetramethyl-4-piperidinyl)-, polymer with 2,2'-[1,4-butanediylbis(oxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

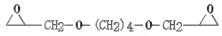
CRN 71981-39-0
CMF C60 H116 N14

L11 ANSWER 87 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



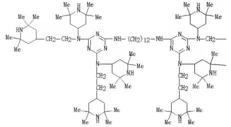
CM 2

CRN 2425-79-8
CMF C10 H18 O4



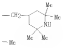
IT 75944-83-1P
RL: PREP (Preparation)
(preparation of)
RN 75944-83-1 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,12-dodecanediylbis[N',N''-bis(2,2,6,6-tetramethyl-4-piperidinyl)-N',N''-bis[2-(2,2,6,6-tetramethyl-4-piperidinyl)ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

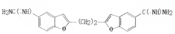


L11 ANSWER 87 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

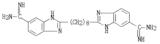
PAGE 1-B



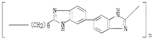
L11 ANSWER 88 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1981:232 CAPLUS
DN 94:232
OREF 94:47a,50a
TI Strategies for anticoagulation with synthetic protease inhibitors Xa inhibitors versus thrombin inhibitors
AU Tidwell, R. R.; Webster, W. P.; Shaver, S. R.; Geratz, J. D.
CS Sch. Med., Univ. North Carolina, Chapel Hill, NC, 27514, USA
SO Thrombosis Research (1980), 19(3), 339-49
CODEN: THBRAA; ISSN: 0049-3848
DT Journal
LA English
GI


I

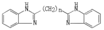
AB Within the series of synthetic inhibitors of arginine-specific esteroproteases 1,2-bis(5-amidino-2-benzofuranyl)ethane (I) [66639-67-6] was identified as a preferential inhibitor of bovine blood coagulation factor Xa [9002-05-5] (Ki = 5.73 + 10-7M) and α,α'-bis(4-amidino-2-iodophenoxy)-p-xylene [67833-99-2] as a preferential inhibitor of human thrombin [9002-04-4] (Ki = 3.79 + 10-7M). With the help of these compds. it was demonstrated that a hypocoagulable state of human plasma can be established much more effectively with a Xa inhibitor than with a thrombin inhibitor. This was in contrast to the findings with canine plasma where suppression of factor Xa presented no advantage over suppression of thrombin. With porcine plasma the situation was similar to the experience with human plasma and led to the selection of pig over the dog for in vivo testing of I. Infusion expts. in the pig confirmed the usefulness of I; only 0.1 mg/kg/min was needed for full anticoagulation, i.e., for maintaining the partial thromboplastin time at 2.5 times the control value. Pigs appear to be an exptl. model well-suited for extrapolation of data to man.
IT 75846-16-1
RL: BIOL (Biological study)
(anticoagulation therapy with, factor Xa inhibition in relation to)
RN 75846-16-1 CAPLUS
CN 1H-Benzimidazole-5-carboximidamide, 2,2'-(1,8-octanediyl)bis- (9CI) (CA INDEX NAME)



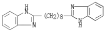
L11 ANSWER 89 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1980:568651 CAPLUS
DN 93:168651
OREF 93:26883a,26886a
TI Studies on the synthesis and properties of polybenzimidazoles
AU Zurakowska-Orszagh, Janina; Kurzela, Malgorzata; Kaminski, Jaroslaw
CS Uniw. Warszawski, Warsaw, Pol.
SO Polimery (Warsaw, Poland) (1980), 25(2), 51-4
CODEN: POLIA4; ISSN: 0032-2725
DT Journal
LA Polish
AB Polymers containing 5,5'-bibenzimidazole units were prepared by 2-stage polymerization of 4,4'-diacetamido-3,3'-biphenyldiamine with chlorides, anhydrides, or Me esters of aliphatic or aromatic dicarboxylic acids; 1-step polymerization resulted in limited solubility. Thermal decomposition of aliphatic and aromatic polymers began at .apprx.400 and .apprx.500°, resp., with considerable differences depending on structure. The concentration of paramagnetic centers in γ-irradiated polymers [(1.6-7.2) + 1017 spin/g] was relatively stable during storage at -72° to +20° for 500 h. The activity of polymers in decomposing iso-PrOH [67-63-0] increased with increasing concentration of paramagnetic centers.
IT 25035-65-8P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



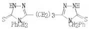
L11 ANSWER 90 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1980:514393 CAPLUS
DN 93:114393
OREF 93:18313a,18316a
TI A simple synthesis of 2,2'-bis-benzimidazoles
AU Vyas, Prakash Chandra; Oza, Chandra Kishore; Goyal, Ashok Kumar
CS Chem. Lab., Univ. Rajasthan, Jaipur, 302004, India
SO Chemistry & Industry (London, United Kingdom) (1980), (7), 287-8
CODEN: CHINAG; ISSN: 0009-3068
DT Journal
LA English
GI


I

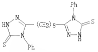
AB Bis(benzimidazolyl)alkanes I (n = 0-8) were prepared (85-94%) by cyclocondensation reaction of o-C6H4(NH2)2 with HO2C(CH2)nCO2H in the presence of polyphosphoric acid (200-50°, 2.5-4 h).
IT 5233-14-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)



L11 ANSWER 91 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1980 110925 CAPLUS
DN 92 110925
OREF 92 18105a,18108a
TI Bisheterocycles Part VI Synthesis of bis(4-arylthiosemicarbazido)-, bis(2-(arylamino)-1,3,4-thiadiazol-5-yl)-, bis(4-aryl-3-thio-1,2,4-triazol-5-yl)-, bis(4-aryl-3-mercapto-1,2,4-triazol-5-yl)-, and bis(4-aryl-3-sulfonyl-1,2,4-trizol-5-yl)alkanes and -alkenes
AU Ram, Vishnu Ji, Mishra, Lallan, Pandey, H N , Mishra, Saraswati
CS Dep Chem , Satish Chandra Coll , Ballia, India
SO Indian Journal of Chemistry, Section B Organic Chemistry Including Medicinal Chemistry (1979), 18B(2), 203-4
CODEN IJSBDB, ISSN 0376-4699
DT Journal
LA English
OS CASREACT 92 110925
GI

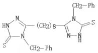

I

AB Various bis(4-arylthiosemicarbazido)-, bis(2-arylamino-1,3,4-thiadiazol-5-yl)-, bis(4-aryl-3-thioxo-1,2,4-triazol-5-yl)-, bis(4-aryl-3-mercapto-1,2,4-triazol-5-yl)- and bis(4-aryl-3-sulfonyl-1,2,4-triazol-5-yl)alkanes and -alkenes were prepared in order to evaluate their pesticidal activities Thus, cyclization of (PhCH2NHCSNHNHCOCH2)2CH2 with 8% NaOH gave the trimethyleneditriazole I Several compds. had herbicidal, insecticidal and fungicidal activities
IT 72743-78-3P 72743-79-4P 72743-80-7P
RL RCT (Reactant), SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and alkylation of)
RN 72743-78-3 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5,5'-(1,8-octanediyl)bis[2,4-dihydro-4-phenyl- (CA INDEX NAME)

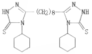


RN 72743-79-4 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5,5'-(1,8-octanediyl)bis[2,4-dihydro-4-(phenylmethyl)- (CA INDEX NAME)

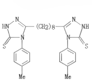
L11 ANSWER 91 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 72743-80-7 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5,5'-(1,8-octanediyl)bis[4-cyclohexyl-2,4-dihydro- (CA INDEX NAME)

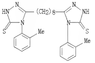


IT 72743-81-8P 72752-43-3P
RL SPN (Synthetic preparation), PREP (Preparation)
(preparation of)
RN 72743-81-8 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5,5'-(1,8-octanediyl)bis[2,4-dihydro-4-(4-methylphenyl)- (CA INDEX NAME)



RN 72752-43-3 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5,5'-(1,8-octanediyl)bis[2,4-dihydro-4-(2-methylphenyl)- (CA INDEX NAME)

L11 ANSWER 91 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



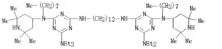
L11 ANSWER 92 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1980:7368 CAPLUS
DN 92:7368
OREF 92:1369a,1372a
TI Polyalkylpiperidine derivatives of s-triazines useful as stabilizers for polymers
IN Rody, Jean
PA Ciba-Geigy A.-G., Switz.
SO Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO	DATE	
PI	EP 3542	A1	19790822	EP 1979-100244	19790129	<--
	EP 3542	B1	19811125			
	R BE, CH, DE, FR, GB, IT, NL					
	CA 1129858	A1	19820817	CA 1979-320891	19790206	<--
	JP 54126249	A	19791001	JP 1979-13820	19790208	<--
	JP 63044751	B	19880906			
	EP 13682	A1	19800806	EP 1979-102300	19790706	<--
	EP 13682	B1	19811014			
	R CH, DE, FR, GB, IT					
	JP 55102637	A	19800806	JP 1979-100661	19790807	<--
PRAI	CH 1978-1402		19780208			
	EP 1979-100244	A	19790129			
	CH 1979-6065	A	19790628			

AB Di- or triglycidyl ethers or dihalides are copolymd. with bis- or tris(etrramthylpiperidinylamino)triazines or alkylenediamine bis(tetramethylpiperidinylamino triazines) to give products which may be useful as light stabilizers Thus, 28 5 g 2,4,6-tris[N-(2,2,6,6-tetramethyl-4-piperidinyl)-N-butylamino]triazine was heated to 160° with 8 0 g 1,4-butanediol diglycidyl ether in octanol and the mixture was distilled at 150-60° /0 001torr to give a copolymer [72004-67-2] of mol weight .apprx.4100
IT 71981-40-3P
RL PREP (Preparation)
(preparation of)
RN 71981-40-3 CAPLUS
CN 1,2-Ethanediol, polymer with 2,2'-[1,4-butanediylbis(oxymethylene)]bis[oxirane] and N,N'''-1,12-dodecanediylbis[N',N'-diethyl-N''-octyl-N''-(2,2,6,6-tetramethyl-4-piperidinyl)-1,3,5-triazine-2,4,6-triamine] (9CI) (CA INDEX NAME)

CM 1

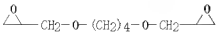
CRN 71981-39-0
CMF C60 H116 N14



CM 2

CRN 2425-79-8
CMF C10 H18 O4

L11 ANSWER 92 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

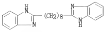


CM 3

CRN 107-21-1
CMF C2 H6 O2

HO—CH2—CH2—OH

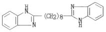
L11 ANSWER 93 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1979 491553 CAPLUS
DN 91 91553
OREF 91 14795a,14798a
TI Synthesis and biological activity of bis(benzimidazolyl-2-alkanes) and their diquaternary ammonium salts
AU Shazhenov, A. A.
CS USSR
SO Regulyatory Rosta Rast. i Gerbitsidy, Tashkent (1978) 128-35
From Ref. Zh., Khim. 1979, Abstr. No. 60583
DT Journal
LA Russian
AB Title only translated.
IT 5233-14-7P
RL RCT (Reactant), SPN (Synthetic preparation), PREP (Preparation), RACT (Reactant or reagent)
(preparation and quaternization of)
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)



IT 70933-75-4P
RL SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 70933-75-4 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis-, compd. with iodoethane (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 5233-14-7
CMF C22 H26 N4

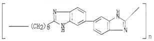


CM 2

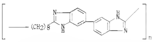
CRN 75-03-6
CMF C2 H5 I

H3C—CH2—I

L11 ANSWER 94 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1979 405631 CAPLUS
DN 91 5631
OREF 91 1049a,1052a
TI Electrical resistivity and ESCA studies on neutral poly(alkylbenzimidazoles), their salts, and complexes
AU Aharoni, Shaul M.; Signorelli, Anthony J.
CS Chem. Res. Cent., Allied Chem. Corp., Morristown, NJ, 07960, USA
SO Journal of Applied Polymer Science (1979), 23(9), 2653-60
CODEN: JAPNAB; ISSN: 0021-8995
DT Journal
LA English
AB Values for the d.c. elec. resistivity at room temperature of a series of metal and acid salts having poly(alkylbenzimidazoles) as the parent ligand varied from approx. 1 + 1013 Ω-cm for the neutral polymers to approx. 1 + 106 Ω-cm for the acid conjugate formed by reaction with HCl. Unexpectedly, changes in resistivity did not correlate with acid strength but correlated roughly with the molar volume of the corresponding acid or metal salt. The nature of the complexes was elucidated using the ESCA technique. The electron core levels of N, Cl, and the various metals were examined. Photoelectron spectra indicated the formation of polybenzimidazole/acid and polybenzimidazole/metal salts. Complexes of Co and Ni were high spin, thus ruling out a planar geometry for the Ni(II) complex.
IT 25035-65-8D, acid and metal salts
RL: USES (Uses)
(d.c. resistivities of)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)

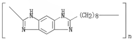


IT 25035-65-8 62008-88-2
RL: USES (Uses)
(d.c. resistivity of)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



RN 62008-88-2 CAPLUS
CN Poly(1,5-dihydrobenzo[1,2-d:4,5-d']diimidazole-2,6-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)

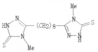
L11 ANSWER 94 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



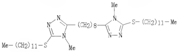
L11 ANSWER 95 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1979:124399 CAPLUS
DN 90:124399
OREF 90:19681a,19684a
TI Lubricant compositions
IN Lee, Peter Ian; Holt, Brian
PA Ciba-Geigy A.-G., Switz.
SO Ger. Offen., 45 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2814458	A1	19781012	DE 1978-2814458	19780404 <--
	US 4178253	A	19791211	US 1978-892711	19780403 <--
	JP 53125409	A	19781101	JP 1978-40138	19780405 <--
	FR 2388041	A1	19781117	FR 1978-10065	19780405 <--
	FR 2387968	A1	19781117	FR 1978-23864	19780816 <--
PRAI	GB 1977-14357	A	19770405		

GI For diagram(s), see printed CA Issue.
AB The preparation of I (R, R1, R2 = H, hydrocarbyl, or substituted heterocyclic group; R may also be SxR2,and R2 may be quaternary ammonium; x = 1-25, which have anticorrosion and antiwear properties in high-pressure lubricating oils rich in S or P and S is disclosed. Thus, a mixture of 1-heptanoyl-4-methyl-3-thiosemicarbazide [69480-46-2] 97.8, NaOH 18, and H2O 500 parts was refluxed for 2 h. The product was cooled and neutralized with concentrated HCl. After filtration, drying and crystallizing from EtOH I (R = hexyl, R1 = 4-Me, R2 = H, x = 1) [69480-45-1] was obtained (83% yield) possessing excellent anticorrosion properties.
IT 69480-20-2 69480-41-7
RL: USES (Uses)
(lubricating oil antiwear additives-corrosion inhibitors)
RN 69480-20-2 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 5,5'-(1,8-octanediyl)bis[2,4-dihydro-4-methyl- (CA INDEX NAME)



RN 69480-41-7 CAPLUS
CN 4H-1,2,4-Triazole, 3,3'-(1,8-octanediyl)bis[5-(dodecylthio)-4-methyl- (CA INDEX NAME)

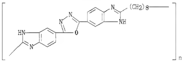


L11 ANSWER 95 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

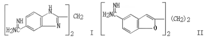
L11 ANSWER 96 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1978:512108 CAPLUS
DN 89:112108
OREF 89:17315a,17318a
TI Ordered heterocyclic copolymers
IN Preston, Jack
PA Monsanto Co., USA
SO U.S., 24 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4087409	A	19780502	US 1969-850262	19690814 <--
PRAI	US 1963-296395	A2	19630719		
	US 1966-592347	A1	19661107		

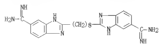
AB Heat-resistant heterocyclic polymers containing 2 or more different heterocyclic linkages occurring in an ordered sequence with aromatic linkages were prepared and spun into fibers. Typical polymers contained, e.g., oxadiazole and benzimidazole, thiazole and pyromellitimide, or benzoxazole and pyromellitimide rings. Fibers spun from these polymers are heat-resistant and have good phys. and elec. properties.
IT 67325-58-0
RL: USES (Uses)
(fiber, heat-resistant)
RN 67325-58-0 CAPLUS
CN Poly(1H-benzimidazole-2,5-diyl-1,3,4-oxadiazole-2,5-diyl-1H-benzimidazole-5,2-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)



L11 ANSWER 97 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1978:499689 CAPLUS
DN 89:99689
OREF 89:15099a,15102a
TI Diarylamidine derivatives with one or both of the aryl moieties consisting of an indole or indole-like ring. Inhibitors of arginine-specific esteroproteases
AU Tidwell, R. R.; Geratz, J. D.; Dann, O.; Volz, G.; Zeh, D.; Loewe, H.
CS Dep. Pathol., Univ. North Carolina Sch. Med., Chapel Hill, NC, USA
SO Journal of Medicinal Chemistry (1978), 21(7), 613-23
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
OS CASREACT 89:99689
GI

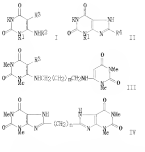


AB Sixty-two diarylamidine derivs. were evaluated for antiproteolytic activity. In most of the compds. 1 or both of the amidino-substituted aryl moieties was either an indole or an indole-like ring (indene, benzimidazole, benzofuran, benzo[β]thiophene, etc.). Several of the compds. had considerable inhibitory potency against thrombin, trypsin, and pancreatic kallikrein. I [66639-68-7] was an exceptionally good inhibitor of trypsin and II [66639-67-6] was an effective inhibitor of the overall blood clotting process. Structure-activity relations are discussed.
IT 66639-30-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and antiproteolytic activity of)
RN 66639-30-3 CAPLUS
CN 1H-Benzimidazole-5-carboximidamide, 2,2'-(1,8-octanediyl)bis-, dihydrochloride (9CI) (CA INDEX NAME)



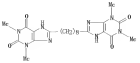
●2 HCl

L11 ANSWER 98 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1978:190756 CAPLUS
DN 88:190756
OREF 88:29997a,30000a
TI Purines, XII. Cyclization of 4-alkylamino-5-nitrosouracils and synthesis of 8-substituted xanthines and bis(theophyllin-8-yl)alkane derivatives
AU Fuchs, Herbert; Gottlieb, Margarete; Pfleiderer, Wolfgang
CS Fachber. Chem., Univ. Konstanz, Constance, Fed. Rep. Ger.
SO Chemische Berichte (1978), 111(3), 982-95
CODEN: CHBEAM; ISSN: 0009-2940
DT Journal
LA German
OS CASREACT 88:190756
GI

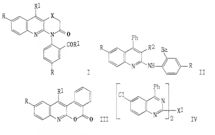


AB Uracils I (R = Me, CHMe2, cyclohexyl, Ph; R1 = Et, Pr, Bu, CH2Ph, allyl, CHMe2, cyclohexyl, Ph; R2 = Me, CHMe2, CH2Ph, CH2CH2Ph, cyclohexyl, tetrahydrofurfuryl, R3 = H) were prepared by chlorinating pyrimidinetriones followed by amination. I (R3 = NO) were obtained by nitrosating I (R3 = H) and in some cases were cyclized to xanthines II (R = R1 = Ph, R4 = H, Ph, CH2Ph, 2-tetrahydrofuryl; R = R1 = Me, R4 = 2-tetrahydrofuryl). Bis(uracilylamino)alkanes III (R3 = H, n = 0-8) were prepared by treating 4-chloro-1,3-dimethyluracil with H2NCH2(CH2)nCH2NH2 and were nitrosated to give III (R3 = NO), which cyclized to IV.
IT 5426-94-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 5426-94-8 CAPLUS
CN 1H-Purine-2,6-dione, 8,8'-(1,8-octanediyl)bis[3,7-dihydro-1,3-dimethyl- (9CI) (CA INDEX NAME)

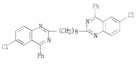
L11 ANSWER 98 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



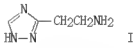
L11 ANSWER 99 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1977:584455 CAPLUS
DN 87:184455
OREF 87:29143a,29146a
TI Heterocycles from 2-amino ketones. XXIII. Reaction of o-amino ketones with dicarboxylic acids
AU Kempter, G.; Rehbaum, D.; Schirmer, J.
CS Sekt. Chem./Biol., Paedagog. Hochsch. "Karl Liebknecht", Potsdam, Ger. Dem. Rep.
SO Journal fuer Praktische Chemie (Leipzig) (1977), 319(4), 589-600
CODEN: JPCEAO; ISSN: 0021-8383
DT Journal
LA German
OS CASREACT 87:184455
GI



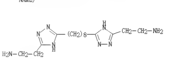
AB Condensed quinolines I (X = CH2, S, O; R = H, Cl, Me; R1 = Ph, 4-MeC6H4) were obtained by condensing aminobenzophenones 4,2-R(R1CO)C6H3NH2 with (HO2CCH2)2X. Reaction of HO2C(CH2)n+1CO2H (n = 3, 4, 7) or o-HO2CC6H4CH2CH2CO2H with 4,2-RBzC6H3NH2 (R = H, Cl, Br, NO2) gave II [R2 = (CH2)nCO2H, o-CH2C6H4CO2H]. III were similarly obtained with homophthalic acid. Reaction of acid chlorides ClCOX1COCl [X1 = (CH2)m, CH2SCH2, CH2OCH2, m = 3, 4, 8] with 4,2-ClBzC6H3NH2 gave (4,2-ClBzC6H3NHCO)2X1 which cyclized to IV with NH3.
IT 64571-98-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 64571-98-8 CAPLUS
CN Quinazoline, 2,2'-(1,8-octanediyl)bis[6-chloro-4-phenyl- (CA INDEX NAME)



L11 ANSWER 100 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1977:511279 CAPLUS
DN 87:111279
OREF 87:17565a,17568a
TI Effect of derivatives of 3-(β-aminoethyl)-1,2,4-triazole on the histamine H1- and H2-receptors
AU Grechishkin, L. L.; Gavrovskaya, L. K.; Goldfarb, V. L.
CS Dep. Pharmacol., Inst. Exp. Med., Leningrad, USSR
SO Pharmacology (1977), 15(6), 512-18
CODEN: PHMGBN; ISSN: 0031-7012
DT Journal
LA English
GI



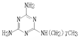
AB Derivs. of IEM 760 (I) [7728-75-8] similar to histamine were studied. Four well-known effects of histamine were considered (the contractions of an isolated guinea pig terminal ileum, dog gastric acid secretion, contractile frequency of an isolated guinea pig right atrium, blood pressure lowering effect in cats). IEM 813 [61012-32-6] and IEM 759 [56436-29-4] exerted some selective effect on H1- and H2-receptors. IEM 813 showed greater affinity for gut-isolated H1-receptors than for stomach and atrium H2-receptors, while IEM 759 mainly influenced H2-receptors. Accordingly, the influence of 1,2,4-triazole analogs of H1- and H2-receptors is subject to structural demands.
IT 61012-41-7
RL: BIOL (Biological study)
(histamine receptor response to)
RN 61012-41-7 CAPLUS
CN 1H-1,2,4-Triazole-3-ethanamine, 5,5'-(1,8-octanediyl)bis- (9CI) (CA INDEX NAME)



L11 ANSWER 101 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1977 107827 CAPLUS
DN 86 107827
OREF 86 17025a,17028a
TI Hardenable polyurethane substances
IN Jackle, William A ; Mazzeo, Michael P ; Gillis, Marina N
PA Thiokol Chemical Corp , USA
SO Ger Offen , 90 pp
CODEN GWXXBX
DT Patent
LA German
FAN CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	DE 2625399	A1	19761230	DE 1976-2625399	19760605 <--
	DE 2625399	C3	19790322		
	US 4136092	A	19790123	US 1976-685215	19760511 <--
	ZA 7602922	A	19770427	ZA 1976-2922	19760517 <--
	AU 7614160	A	19771124	AU 1976-14160	19760521 <--
	AU 498161	B2	19790215		
	SE 7606353	A	19761210	SE 1976-6353	19760604 <--
	BE 842680	A1	19761001	BE 1976-167698	19760608 <--
	DK 7602527	A	19761210	DK 1976-2527	19760608 <--
	FR 2345471	A1	19771021	FR 1976-17266	19760608 <--
	FR 2345471	B1	19800620		
	CA 1081391	A1	19800708	CA 1976-254334	19760608 <--
	NL 7606208	A	19761213	NL 1976-6208	19760609 <--
	JP 51150599	A	19761224	JP 1976-67557	19760609 <--
	JP 54022237	B	19790804		
	GB 1533190	A	19781122	GB 1976-23947	19760609 <--
PRAI	US 1975-585150	A	19750609		
	US 1976-685215		19760511		

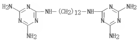
GI



I

AB Noncarcinogenic diamino- and triamino-S-triazine derivs. are used instead of MOCA as polyurethane elastomer hardeners, giving good pot life and phys properties Thus, 100 parts of a prepolymer from poly(ethylene-propylene adipate) of mol weight 2500 and an excess of TDI to give NCO content 3-4%, was combined with 14 parts N-octadecylmelamine (I) [21840-04-0] and 0.5 part triethylenediamine and vulcanized 16 h at 100° in a closed mold, giving a cured polyurethane rubber sample with tensile strength 6340 psi, elongation 640%, Shore A hardness 73, 100% modulus 475, and tear strength 413, compared with values of 6150 psi, 740%, 78, 500, and 413, resp , for a control molding cured with 10 parts MOCA The analogous compound N-hexylmelamine [61912-25-2] was not mutagenic at concns at which it was toxic when tested against strains of Saccharomyces cerevisiae and Salmonella typhimurium
IT 61912-28-5
RL USES (Uses)
(vulcanizing agents, for urethane rubber, with reduced toxicity)
RN 61912-28-5 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,12-dodecanediylbis- (9CI) (CA

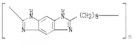
L11 ANSWER 101 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
INDEX NAME)



L11 ANSWER 102 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1977 90543 CAPLUS
DN 86 90543
OREF 86 14321a,14324a
TI Stoichiometrically solvated polyalkylbenzimidazole crystals
AU Aharoni, Shaul M
CS Chem Res Cent , Allied Chem Corp., Morristown, NJ, USA
SO Journal of Applied Polymer Science (1977), 21(1), 181-9
CODEN JAPNAB, ISSN 0021-8995
DT Journal
LA English
AB Some poly(alkylbenzimidazoles), which do not crystallize when pure, were crystallized with ionized solvent molecules to produce solid stoichiometrical, solvated crystals The polymer-solvent interaction was strongly exothermic, and a crosslinked polymer swells in the solvent over hundredfold The cocrystn with stoichiometric amts. of ionized solvent cannot be examined on the assumption that it is a polyelectrolyte gel since ion mobility is precluded It also cannot be treated to according to the corresponding states theory since the latter does not allow for neg. values for the interaction parameter between polymer and solvent. A theor derivative, originating from Flory's semiflexible chain treatment, apparently predicts and explains the behavior of the poly(alkylbenzimidazole)-solvent systems.
IT 62008-89-3P 62008-90-6P 62008-91-7P
RL PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)
RN 62008-89-3 CAPLUS
CN Poly[(1,5-dihydrobenzo[1,2-d:4,5-d']diimidazole-2,6-diyl)-1,8-octanediyl diformate] (9CI) (CA INDEX NAME)

CM 1

CRN 62008-88-2
CMF (C16 H20 N4)n
CCI PMS



CM 2

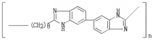
CRN 64-18-6
CMF C H2 O2

RN 62008-90-6 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl diformate) (9CI) (CA INDEX NAME)

CM 1

CRN 25035-65-8
CMF (C22 H24 N4)n
CCI PMS

L11 ANSWER 102 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



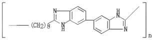
CM 2

CRN 64-18-6
CMF C H2 O2

RN 62008-91-7 CAPLUS
CN Poly[[5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl bis(trifluoroacetate)] (9CI) (CA INDEX NAME)

CM 1

CRN 25035-65-8
CMF (C22 H24 N4)n
CCI PMS

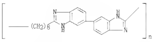


CM 2

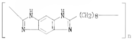
CRN 76-05-1
CMF C2 H F3 O2

IT 25035-65-8 62008-88-2
RL RCT (Reactant), RACT (Reactant or reagent)
(solvation of, equations for)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)

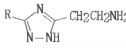
L11 ANSWER 102 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 62008-88-2 CAPLUS
CN Poly(1,5-dihydrobenzo[1,2-d 4,5-d']diimidazole-2,6-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)

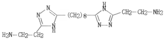


L11 ANSWER 103 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1977 11709 CAPLUS
DN 86 11709
OREF 86 1883a,1886a
TI Sensitivity of histamine H1 and H2 receptors to 3-(β-aminoethyl)-1,2,4-triazole derivatives
AU Grechishkin, L L , Gavrovskaya, L K , Gol'dfarb, V L ; Brovtsina, N B
CS Inst Eksp Med , Leningrad, USSR
SO Farmakologiya i Toksikologiya (Moscow) (1976), 39(5), 556-60
CODEN FATOAO, ISSN 0014-8318
DT Journal
LA Russian
GI



I, R=Me
II, R=NH_2

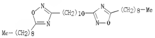
AB Of the 14 3-(β-aminoethyl)-1,2,4-triazole derivs. tested for activity on H1- and H2-receptors (isolated guinea pig intestine ad guinea pig atrium, gastric secretion in dogs, arterial pressure in cats), IEM-813 [3-(β-aminoethyl)-5-methyl-1,2,4-triazole](I) [61012-32-6] was the most effective H1-agonist; IEM-759 [3-(β-aminoethyl)-5-amino-1,2,4-triazole](II) [56436-29-4] was the most effective H2-agonist Structure activity relations indicated that the conforming zones of the histamine receptors differed in their lipophilic (H1) and hydrophobic (H2) properties
IT 61012-41-7
RL BIOL (Biological study)
(histamine receptor sensitivity to)
RN 61012-41-7 CAPLUS
CN 1H-1,2,4-Triazole-3-ethanamine, 5,5'-(1,8-octanediyl)bis- (9CI) (CA INDEX NAME)



L11 ANSWER 104 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1976 446520 CAPLUS
DN 85 46520
OREF 85 7559a,7562a
TI Furazan N-oxides a convenient source of both nitrile oxides and isocyanates
AU Chapman, J A , Crosby, J , Cummings, C A , Rennie, R. A. C.; Paton, R. Michael
CS Corp Lab , Imp Chem Ind , Runcorn, UK
SO Journal of the Chemical Society, Chemical Communications (1976), (7), 240-1
CODEN JCCCAT, ISSN 0022-4936
DT Journal
LA English
OS CASREACT 85 46520
GI

I

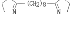
AB Thermolysis of the furazan N-oxides I [R = Ph, Me, R2 = $(CH_2)_{10}$] results in ring cleavage to RCN+O- which may be trapped in good yield as 1,3-dipolar cycloadducts In the absence of dipolarophiles RCN+O- rearrange to RNCO
IT 60148-20-1P
RL SPN (Synthetic preparation), PREP (Preparation)
(preparation of)
RN 60148-20-1 CAPLUS
CN 1,2,4-Oxadiazole, 3,3'-(1,10-decanediyl)bis[5-nonyl- (CA INDEX NAME)



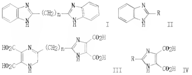
L11 ANSWER 105 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1976:408093 CAPLUS
DN 85:8093
OREF 85:1296h,1297a
TI Functional fluid compositions containing substituted pyrimidines
IN Sullivan, James D.
PA Monsanto Co., USA
SO U.S., 10 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	US 3939084	A	19760217	US 1973-429451	19731228 <--
	NL 6704601	A	19671009	NL 1967-4601	19670331 <--
	ES 338687	A1	19680401	ES 1967-338687	19670331 <--
	BE 696664	A	19671005	BE 1967-696664	19670405 <--
	IL 27743	A	19710128	IL 1967-27743	19670405 <--
	BR 6788302	D0	19730109	BR 1967-188302	19670405 <--
	GB 1188813	A	19700422	GB 1967-1188813	19670406 <--
	GB 1192910	A	19700528	GB 1967-1192910	19670406 <--
	US 3591500	A	19710706	US 1969-796885	19690205 <--
	US 3752764	A	19730814	US 1971-156134	19710623 <--
	US 3759829	A	19730918	US 1971-156133	19710623 <--
	US 3788992	A	19740129	US 1971-156135	19710623 <--
PRAI	US 1966-540488	A2	19660406		
	US 1969-796885	A2	19690205		
	US 1971-156133	A1	19710623		
	US 1972-316159	A1	19721218		

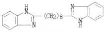
AB Jet engine lubricants and hydraulic fluids comprise a major amount of compds of lubricating viscosity, selected from polyphenyl thioethers and mixed polyphenyl oxy- and thioethers, or mixts. thereof and a corrosion inhibiting amount of 4-aminopyrazolo[3,4-d]pyrimidine [2380-63-4] or 7-amino-1-v-triazolo[d]pyrimidine (I) [1123-54-2]. Thus, a mixture of m-bis(phenylthio)benzene [2974-10-9], 50, m-phenoxyphenyl m-phenylthiophenyl sulfide [7372-94-3], 25, bis(m-phenoxyphenyl) sulfide [7372-93-2], 11, bis(m-phenylthiophenyl) sulfide [2392-84-9], 14 weight%, with 1% I added, when tested for corrosion by MIL-L-9236A except at 500° F, had essentially no effect on steel, Ti, Mg alloy, or Al alloy, but gave loss in mg/cm2 of .01 for Cu and .22 for Ag
IT 7516-99-6
RL USES (Uses)
(antioxidants, for thioether hydraulic fluids)
RN 7516-99-6 CAPLUS
CN 1H-Imidazole, 2,2'-(1,8-octanediyl)bis[4,5-dihydro- (CA INDEX NAME)



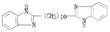
L11 ANSWER 106 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1976:150564 CAPLUS
DN 84:150564
OREF 84:24467a,24470a
TI Imidazole-4,5-dicarboxylic acid derivates. Part II. 2,2'-Oligomethylene-bridged bisimidazole-4,5-dicarboxylic acids
AU Schubert, Hermann; Hoffmann, Siegfried; Lehmann, Guenther; Barthold, Ingeborg; Meichsner, Hubert; Polster, Hans E.
CS Sekt. Chem., Martin-Luther-Univ., Halle/Saale, Ger. Dem. Rep.
SO Zeitschrift fuer Chemie (1975), 15(12), 481-2
CODEN: ZECEAL; ISSN: 0044-2402
DT Journal
LA German
OS CASREACT 84:150564
GI



AB The cyclization of (CH2)n(CO2H)2 with o-phenylenediamine in a 1:2 ratio gave 50-90% yields of I (n = 1-8, 10). II (R = Ph, C17H35) were similarly prepared. Ring cleavage of I and II gave 30-95% yields of III (n = 2-8) and IV (R = H, Me, Et, Pr, EtMeCH, Ph), resp.
IT 5233-14-7P 58954-21-5P 58954-31-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)

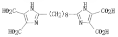


RN 58954-21-5 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,10-decanediyl)bis- (CA INDEX NAME)



L11 ANSWER 106 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

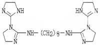
RN 58954-31-7 CAPLUS
CN 1H-Imidazole-4,5-dicarboxylic acid, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)



L11 ANSWER 107 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1975:606278 CAPLUS
DN 83:206278
OREF 83:32471a,32474a
TI N,N'-Alkylenebis[2-amino-1(2-imidazolin-2-yl)-2-imidazolines]
IN Wittekind, Raymond R.; Shavel, John, Jr.
PA Warner-Lambert Co., USA
SO U.S., 4 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

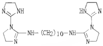
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3905992	A	19750916	US 1973-396166	19730911 <--
PRAI	US 1973-396166	A	19730911		

GI For diagram(s), see printed CA Issue.
AB Seven imidazolines I (n = 4-8, 10, 12), with hypotensive activity in dogs, were prepared, mostly by reaction of 1-(2-imidazolin-2-yl)-2-(methylthio)-2-imidazoline hydroiodide with H2N(CH2)2NH2 in MeCN at reflux.
IT 57314-25-7P 57314-26-8P 57314-27-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 57314-25-7 CAPLUS
CN 1,8-Octanediamine, N,N'-bis(4,4',5,5'-tetrahydro[1,2'-bi-1H-imidazol]-2-yl)-, dihydriodide (9CI) (CA INDEX NAME)



●2 HI

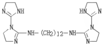
RN 57314-26-8 CAPLUS
CN 1,10-Decanediamine, N,N'-bis(4,4',5,5'-tetrahydro[1,2'-bi-1H-imidazol]-2-yl)-, dihydriodide (9CI) (CA INDEX NAME)



●2 HI

RN 57314-27-9 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis(4,4',5,5'-tetrahydro[1,2'-bi-1H-imidazol]-2-yl)-, dihydriodide (9CI) (CA INDEX NAME)

L11 ANSWER 107 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

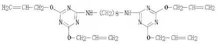


●2 HI

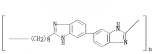
L11 ANSWER 108 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1975:515796 CAPLUS
DN 83:115796
OREF 83:18207a,18210a
TI Insulation of electrical cables and conductors
IN Kleeberg, Wolfgang; Weidenmann, Rudolf; Ahne, Hellmut
PA Siemens A.-G.
SO Ger. Offen., 27 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2308637	A1	19740905	DE 1973-2308637	19730221 <--
	DE 2308637	B2	19750904		
	DE 2308637	C3	19760422		
	GB 1448489	A	19760908	GB 1973-58154	19731214 <--
	FR 2218625	A1	19740913	FR 1973-45854	19731220 <--
	US 3936523	A	19760203	US 1974-444100	19740220 <--
	IT 1008873	B	19761130	IT 1974-48483	19740220 <--
	AT 7401404	A	19750815	AT 1974-1404	19740221 <--
	AT 329655	B	19760525		
PRAI	DE 1973-2308637	A	19730221		

AB Crosslinked polyethylene (I) [9002-88-4] or ethylene copolymer insulation on elec. conductors such as Cu wire was prepared by extruding a mixture of the polymer, a peroxide, and a crosslinking agent such as 2,4-diallyloxy-6-octadecylamino-s-triazine (II) or N,N'-bis(2,4-diallyloxy-s-triazin-6-yl)-1,8-octanediamine [53715-03-0] on the wire and heating the mixture at 200-60°. The insulation contained no gas bubbles. Thus, a mixture of I (d. 0.918) 96.5, 1,3-bis(tert-butylperoxyisopropyl)benzene 1.2, II 2, and polymeric 2,2,4-trimethyl-1,2-dihydroquinoline 0.3 part was extruded on Cu wire and heated at 240° for 7 sec to give 83% crosslinking.
IT 53715-03-0
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents, for polyethylene elec. insulation)
RN 53715-03-0 CAPLUS
CN 1,8-Octanediamine, N,N'-bis[4,6-bis(2-propenyloxy)-1,3,5-triazin-2-yl]- (9CI) (CA INDEX NAME)



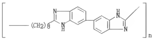
L11 ANSWER 109 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1975:515131 CAPLUS
DN 83:115131
OREF 83:18107a,18110a
TI Polymers with unusual electrical properties
AU Litt, M.; Hsu, Che-Hsuing; Basi, P.; Noveske, T.
CS Dep. Macromol. Sci., Case West. Reserve Univ., Cleveland, OH, USA
SO U. S. N. T. I. S., AD/A Rep. (1974), No. 002440/6GA, 33 pp.
Avail.: NTIS
From: Govt. Rep. Announce. (U. S.) 1975, 75(4), 119
CODEN: XTSRDM
DT Report
LA English
AB Poly(octamethylene dibenzimidazole) [25035-65-8] amorphous polymer formed a 1:1 complex [55993-27-6] with formic acid which had large peaks in the dielectric constant and loss factor at 120° that were frequency independent, indicating a first order process. The value of the dielectric constant at the top of the peak was comparable to values obtained for single crystals of ferroelectric substances, so that the complex was probably ferroelectric. The films stored large amts. of charge when poled, and showed spontaneous current flow and voltage, which were discussed as a function of time and temperature.
IT 25035-65-8
RL: PRP (Properties)
(dielectric properties of)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



IT 55993-27-6
RL: USES (Uses)
(ferroelectric substances, crystalline)
RN 55993-27-6 CAPLUS
CN Formic acid, compd. with poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 25035-65-8
CMF (C22 H24 N4)n
CCI PMS

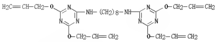


CM 2

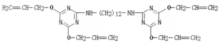
L11 ANSWER 109 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

CRN 64-18-6
CMF C H2 O2

L11 ANSWER 110 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1975:410009 CAPLUS
DN 83:10009
OREF 83:1677a
TI Partial aminolysis of 2,4,6-triallyloxy-s-triazine. II. Preparation of N,N'-bis[4,6-diallyloxy-2-s-triazinyl]diaminoalkanes
AU Ahne, H.; Wiedenmann, R.; Kleeberg, W.
CS Forschungslab., Siemens A.-G., Erlangen, Fed. Rep. Ger.
SO Synthesis (1975), (3), 184-6
CODEN: SYNTBF; ISSN: 0039-7881
DT Journal
LA German
OS CASREACT 83:10009
GI For diagram(s), see printed CA Issue.
AB Bis(diallyloxytriazinylamino)alkanes I[X = NH(CH2)2-12NH, NH(CH2CH2NH)1-2CH2CH2NH, piperazinediyl] were obtained in ≥90% yield by treating 2,4,6-tris(allyloxy)-s-triazine with diamines.
IT 53715-03-0P 55694-24-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 53715-03-0 CAPLUS
CN 1,8-Octanediamine, N,N'-bis[4,6-bis(2-propenyloxy)-1,3,5-triazin-2-yl]- (9CI) (CA INDEX NAME)

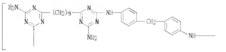


RN 55694-24-1 CAPLUS
CN 1,12-Dodecanediamine, N,N'-bis[4,6-bis(2-propenyloxy)-1,3,5-triazin-2-yl]- (9CI) (CA INDEX NAME)



L11 ANSWER 111 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1975 98455 CAPLUS
DN 82 98455
OREF 82 15731a,15734a
TI Syntheses and properties of polyguanamines from diesters and bisbiguanides
AU Seo, Toshihiro; Ishiwata, Hiroshi; Kakurai, Toshio
CS Dep. High Polym. Technol., Tokyo Inst. Technol., Tokyo, Japan
SO Nippon Kagaku Kaishi (1974), (12), 2419-24
CODEN NKAKB8; ISSN 0369-4577
DT Journal
LA Japanese
GI For diagram(s), see printed CA Issue.
AB Polycondensation of dicarboxylic acid diphenyl esters (I, R = (CH2)4, (CH2)8, m-phenylene, or p-phenylene) with bisbiguanides R1[NHC(NH)NHC(NH)NH2]2 (R1 = methylenedi-p-phenylene, oxydi-p-pheylene, or m-phenylene) at 90-150° in dipolar aprotic solvents gave 92 7-104% polyguanamines (II). The softening temperature and glass-transition temperature of II were 230-≥330° and 100-10°, resp. Treatment of I with phenylbiguanide [102-02-3] gave III as model compds.
IT 54641-09-7P 54641-10-0P 54641-11-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 54641-09-7 CAPLUS
CN Poly[(6-amino-1,3,5-triazine-2,4-diyl)-1,8-octanediyl(6-amino-1,3,5-triazine-2,4-diyl)imino-1,4-phenylenemethylene-1,4-phenyleneimino] (9CI) (CA INDEX NAME)

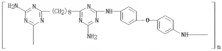
PAGE 1-A



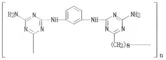
PAGE 1-B

RN 54641-10-0 CAPLUS
CN Poly[(6-amino-1,3,5-triazine-2,4-diyl)-1,8-octanediyl(6-amino-1,3,5-triazine-2,4-diyl)imino-1,4-phenyleneoxy-1,4-phenyleneimino] (9CI) (CA INDEX NAME)

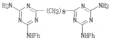
L11 ANSWER 111 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 54641-11-1 CAPLUS
CN Poly[(6-amino-1,3,5-triazine-2,4-diyl)imino-1,3-phenyleneimino(6-amino-1,3,5-triazine-2,4-diyl)-1,8-octanediyl] (9CI) (CA INDEX NAME)



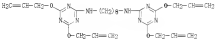
IT 54641-37-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as model compound for polyguanamines)
RN 54641-37-1 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,8-octanediyl)bis[N-phenyl- (9CI) (CA INDEX NAME)



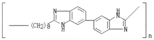
L11 ANSWER 112 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1975 59007 CAPLUS
DN 82 59007
OREF 82 9447a,9450a
TI Crosslinking bis[bis(alkenyloxy)triazinyl] diamines
IN Ahne, Hellmut; Wiedenmann, Rudolf; Kleeberg, Wolfgang
PA Siemens A.-G.
SO Ger. Offen., 10 pp.
CODEN GWXXBX
DT Patent
LA German
FAN CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	DE 2308611	A1	19740905	DE 1973-2308611	19730221 <--
	DE 2308611	C3	19790315		
	AT 7310621	A	19760315	AT 1973-10621	19731219 <--
	AT 333288	B	19761110		
	GB 1448490	A	19760908	GB 1974-3232	19740123 <--
	FR 2218335	A1	19740913	FR 1974-5783	19740220 <--
	IT 1002978	B	19760520	IT 1974-48496	19740220 <--
PRAI	DE 1973-2308611	A	19730221		

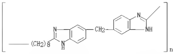
GI For diagram(s), see printed CA Issue.
AB Seven diamines I (R=allyl, methallyl, or propallyl; Z=alkylene), useful as crosslinking coagents for (olefin) polymers in elec. insulator manufacture, were prepared in high yield and purity from trialkenyl cyanurate and Z(NH2)2 by 1-step bulk reaction at room temperature with aminolysis alc. distillation. Thus, reaction of triallyl cyanurate with (CH2NH2)2 as above gave 96% N,N'-bis[2,4-bis(allyloxy)-6-s-triazinyl]ethylenediamine (I, R= CH2:CHCH2, Z = C2H4) [54060-60-5].
IT 53715-03-0
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents, for polymers)
RN 53715-03-0 CAPLUS
CN 1,8-Octanediamine, N,N'-bis[4,6-bis(2-propenyloxy)-1,3,5-triazin-2-yl]- (9CI) (CA INDEX NAME)



L11 ANSWER 113 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1974:570077 CAPLUS
DN 81:170077
OREF 81:26327a,26330a
TI Effects of structure on properties of some new aromatic-aliphatic polybenzimidazoles
AU Tsur, Yoel; Levine, Harold H.; Levy, Moshe
CS Dep. Plast. Res., Weizmann Inst. Sci., Rehovot, Israel
SO Journal of Polymer Science, Polymer Chemistry Edition (1974), 12(7), 1515-29
CODEN: JPLCAT; ISSN: 0360-6376
DT Journal
LA English
AB A series of polybenzimidazoles with glass transition temperature range 205-430.deg. which began to decompose in Ar at >465 deg. and in air at >340.deg. were prepared by condensation of isophthalic, and phenylenediacetic acids, and a series of aliphatic dicarboxylic acids with 3,3'-diaminobenzidine, 3,3',4,4'-tetraaminodiphenyl ether, or 3,3',4,4'-tetraaminodiphenylmethane in polyphosphoric acid at 170 deg.. The structure of the polymers was confirmed by comparison of their spectra with those of 2,2'-xylylenedibenzimidazole models prepared from phenylenediacetic acids and o-phenylenediamine. An isophthalic acid-m-phenylenediacetic acid-3,3'-diaminobenzidine polymer [53192-90-8] with isophthalic-diacetic acid ratio 3:1, had the best isothermal oxidation resistance and thermal and processing characteristics.
IT 25035-65-8P 31850-71-2P 53202-18-9P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, heat-resistant)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)

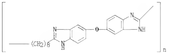


RN 31850-71-2 CAPLUS
CN Poly(1H-benzimidazole-2,5-diylmethylene-1H-benzimidazole-5,2-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)

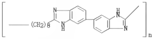


RN 53202-18-9 CAPLUS
CN Poly(1H-benzimidazole-2,5-diyloxy-1H-benzimidazole-5,2-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)

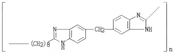
L11 ANSWER 113 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L11 ANSWER 114 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1974:521353 CAPLUS
DN 81:121353
OREF 81:19203a,19206a
TI TGA-MS [thermogravimetric-mass spectrometric] degradation studies of some new aliphatic-aromatic polybenzimidazoles
AU Tsur, Yoel; Freilich, Yitzchak L.; Levy, Moshe
CS Dep. Plast. Res., Weizmann Inst. Sci., Rehovot, Israel
SO Journal of Polymer Science, Polymer Chemistry Edition (1974), 12(7), 1531-9
CODEN: JPLCAT; ISSN: 0360-6376
DT Journal
LA English
AB Polybenzimidazoles prepared by polymerizing phenylenediacetic acids and aliphatic dicarboxylic acids with aromatic tetramines decomposed at .geq.500 deg. in Ar to give a solid sublimate consisting of a mixture of fractions derived from the breaking of polymer chains at the methylene bonds. The 1st weight loss resulting from sublimation ranged from 40 to 80% and increased as the length of the aliphatic chain increased. The most abundant residue in the sublimate was the benzimidazole residue. Polymers with an ether linkage in the amine residue started to degrade at 450.deg.. At temps. >560 deg. gaseous products similar to those of the corresponding all-aromatic benzimidazoles were obtained. Studies of degradation in air showed that preoxidn. of the methylene groups to carbonyls at 250 deg. improved the thermal stability of polybenzimidazoles containing single methylene groups and eliminated the fast decomposition into solid fragments.
IT 25035-65-8 31850-71-2 53202-18-9
RL: PRP (Properties)
(degradation of, mechanism of)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)

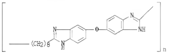


RN 31850-71-2 CAPLUS
CN Poly(1H-benzimidazole-2,5-diylmethylene-1H-benzimidazole-5,2-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)



RN 53202-18-9 CAPLUS
CN Poly(1H-benzimidazole-2,5-diyloxy-1H-benzimidazole-5,2-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)

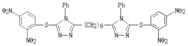
L11 ANSWER 114 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



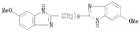
L11 ANSWER 115 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1974:497737 CAPLUS
DN 81:97737
OREF 81:15440h,15441a
TI Photographic direct-positive emulsions
IN Hinata, Masanao; Shiba, Keisuke; Ohi, Reiichi; Shishido, Tadao
PA Fuji Photo Film Co., Ltd.
SO Ger. Offen., 40 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2363308	A1	19740627	DE 1973-2363308	19731219 <--
	JP 49084639	A	19740814	JP 1972-127575	19721219 <--
	GB 1424850	A	19760211	GB 1973-58647	19731218 <--
	US 3910795	A	19751007	US 1973-426146	19731219 <--
PRAI	JP 1972-127575	A	19721219		

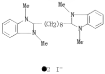
AB Photog. direct-pos. emulsions of high reversal sensitivity, and giving images of high maximum d. and low min. d. contained (nitrophenylthio)triazoles or -tetraazaindenes, optionally along with a cyanine sensitizer, for the sensitization of the emulsion in the blue region. Thus, a chemical fogged Ag(Br,I) emulsion containing 8 × 10-2 mole 3-ethyl-5-(2,4-dinitrophenylthio)-4-phenyltriazole (I) had sensitivity 240, maximum d. 2.0, and min. d. 0.04 vs. 100, 1.3, and 0.05, resp., for an emulsion containing Pinakryptol Yellow instead of I.
IT 54188-83-9
RL: TEM (Technical or engineered material use); USES (Uses)
(photog. sensitizer, for direct-pos. emulsions)
RN 54188-83-9 CAPLUS
CN 4H-1,2,4-Triazole, 3,3'-(1,8-octanediyl)bis[5-[(2,4-dinitrophenyl)thio]-4-phenyl- (CA INDEX NAME)



L11 ANSWER 116 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1974 409648 CAPLUS
DN 81 9648
OREF 81 1537a,1540a
TI Antiviral activity of benzimidazole derivatives IV Bisbenzimidazole derivatives 2
AU Akihama, Sumiyuki, Takahashi, Katsuo, Miyajima, Noriko
CS Meiji Coll Pharm , Tokyo, Japan
SO Yakugaku Zasshi (1974), 94(2), 247-51
CODEN YKKZAJ, ISSN 0031-6903
DT Journal
LA Japanese
AB Of 54 bisbenzimidazole derivs tested, 20 compds such as 1,3-bis(2-benzimidazole)propane (I) [7147-66-2] and 1,4-bis(2-benzimidazolyl)butane [4746-56-9] slightly inhibited the cytopathic effect of poliovirus, but did not show any antiviral activity against adenovirus At the concentration of maximum nontoxic dose, I, 1,3-bis(5(or 6)-nitro-2-benzimidazolyl)propane [51877-67-9], 1,3-bis(2-benzimidazolyl)-1,2,3-trihydroxypropane [51877-68-0], and 1,4-bis(2-benzimidazolyl)butane inhibited the plaque formation of poliovirus by 86 6, 56 3, 58 5 and 56 9%, resp Compds such as I, 1,4-bis(5(or 6)-methoxy-2-benzimidazolyl)butane [51877-69-1], 1,4-bis(2-benzimidazolyl)-1,2,3,4-tetrahydroxybutane [10300-57-9] and 1,5-bis(5(or 6)-methyl-2-benzimidazolyl)pentane [51877-70-4] decreased the yield of intracellular virus and the incorporation of 14C-labeled uridine into acid-soluble material in HeLa cells infected with poliovirus.
IT 52060-02-3
RL BAC (Biological activity or effector, except adverse), BSU (Biological study, unclassified), THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiviral activity of)
RN 52060-02-3 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis[5-methoxy- (9CI) (CA INDEX NAME)

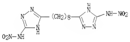


L11 ANSWER 117 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1974 103765 CAPLUS
DN 80 103765
OREF 80 16635a,16638a
TI Pharmacology of new bis-quaternary derivatives of benzimidazole
AU Tremsin, S N
CS USSR
SO Farmakol Alkaloidov Ikh Proizvod (1972), 162-7 Editor(s) Sultanov, M B Publisher "Fan", Tashkent, USSR
CODEN 27NBAD
DT Conference
LA Russian
AB When injected i v at 0 5-10 mg/kg into mice, 1,4-bis(1-methyl-2-benzimidazolyl)butane dimethiodide (I) [51274-79-4], 1,6-bis(1-methyl-2-benzimidazolyl)hexane dimethiodide [51350-54-0], 1,7-bis(1-methyl-2-benzimidazolyl)heptane dimethiodide [51274-80-7], or 1,8-bis(1-methyl-2-benzimidazolyl)octane dimethiodide [51274-81-8] had hypotensive and ganglionblocking effects At higher concns , the prepns had a curare-like activity The increase in the carbon atom number from 4 to 8 was accompanied by an increase in the hypotensive and curare-like properties of the prepns.
IT 51274-81-8
RL BIOL (Biological study)
(hypotension and nerve center blockade from)
RN 51274-81-8 CAPLUS
CN 1H-Benzimidazolium, 2,2'-(1,8-octanediyl)bis[1,3-dimethyl-, diiodide (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

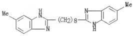
L11 ANSWER 118 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1973 478692 CAPLUS
DN 79 78692
OREF 79 12769a,12772a
TI Reaction of carboxylic acid hydrazides with 1-nitro-2-methylisothiourea
AU Fidler, Zh N , Luchina, M G , Lopyrev, V. A., Stotskii, A A
CS Leningr Ins Tekst Legk Prom im Kirova, Leningrad, USSR
SO Zhurnal Organicheskoi Khimii (1973), 9(6), 1205-9
CODEN ZORKAE, ISSN 0514-7492
DT Journal
LA Russian
GI For diagram(s), see printed CA Issue
AB RCONHNHC(NH)NHNO2 (I, R = Me, Et, Me2CH, Ph, o-O2NC6H4, m-O2NC6H4, p-O2NC6H4, m-ClC6H4) were prepared in 44-99% yields by treatment of RCONHNH2 with MeSC(NH)NHNO2 in H2O at 0-5° . Cyclization of I by aqueous NaOH gave 54-99% yields of the corresponding triazoles (II).
IT 42216-51-3P
RL SPN (Synthetic preparation), PREP (Preparation)
(preparation of)
RN 42216-51-3 CAPLUS
CN 1H-1,2,4-Triazol-3-amine, 5,5'-(1,8-octanediyl)bis[N-nitro- (9CI) (CA INDEX NAME)



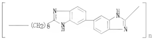
L11 ANSWER 119 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1972:566050 CAPLUS
DN 77:166050
OREF 77:27263a,27266a
TI Polyester fibers
IN Okada, Katsuhiko; Hayashi, Eiichi
PA Toray Industries, Inc.
SO Jpn. Tokkyo Koho, 4 pp
CODEN: JAXXAD
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO	DATE
PI	JP 47020562	B4	19720610	JP 1969-18523	19690313 <--

AB Dyeability modifiers (acid dyes) for polyester fibers were I (n = 2, 3, 4, 6, 7, 8, 10, or 12), 5,5'-dimethyl-2,2'-octamethylenebisbenzimidazole [37134-95-5], and 5,5'-dimethyl-2,2'-hexamethylenebisbenzimidazole [37134-96-6]. For example, a poly(ethylene terephthalate) fiber containing 2% 2,2'-tetraethylenebisbenzimidazole [4746-56-9] was dyed with Anthraquinone Blue SWF at 100.deg. for 60 min (pH 3) to give a washfast product
IT 37134-95-5
RL: USES (Uses)
(dyeing of polyester fibers with acid dyes in presence of)
RN 37134-95-5 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis[5-methyl- (9CI) (CA INDEX NAME)



L11 ANSWER 120 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1972:540568 CAPLUS
DN 77:140568
OREF 77:23127a,23130a
TI Transpolymerization
AU Akagane, Katsuo; Allan, G. G.
CS Kansai Paint Co., Ltd., Osaka, Japan
SO Shikizai Kyokaishi (1972), 45(6), 293-6
CODEN: SKYOAO; ISSN: 0010-180X
DT Journal
LA Japanese
AB Poly(Na arsenate) [36548-45-5] or polyphosphoric acid was depolymd. to NaH2AsO4 or to H3PO4, resp., in the presence of triethylene glycol, while the triethylene glycol was converted to polyethylene glycol [25322-68-3]. Similarly, ethylene glycol and diethylene glycol were, resp., dimerized and cyclized to dioxane [123-91-1], and 1,4-butanediol was converted to tetrahydrofuran [109-99-9]. In the presence of polyphosphoric acid, an equimolar mixture of 3,3'-diaminobenzidine and sebacic acid was polymerized to give poly(2,2'-octamethylene-5,5'-bibenzimidazole) [24979-92-8] at a lower temperature than the conventional condensation polymerization temperature.
IT 25035-65-8
RL: USES (Uses)
(ring closure in, in presence of polyphosphoric acid)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)

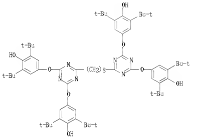


L11 ANSWER 121 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1972:462782 CAPLUS
DN 77:62782
OREF 77:10389a,10392a
TI 2,4-Bis(3,5-di-tert-butyl-4-hydroxyphenoxy)-s-triazines as antioxidants for polypropylene
IN Brunetti, Heimo
PA Ciba-Geigy A.-G.
SO Ger. Offen., 26 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2155453	A	19720510	DE 1971-2155453	19711108 <--
	CH 538299	A	19730815	CH 1970-16548	19701109 <--
	GB 1331560	A	19730926	GB 1971-49485	19711025 <--
	US 3775411	A	19731127	US 1971-192592	19711026 <--
	NL 7115353	A	19720512	NL 1971-15353	19711108 <--
	FR 2113669	A5	19720623	FR 1971-39946	19711108 <--
	IT 959350	B	19731110	IT 1971-30826	19711108 <--
	US 3867337	A	19750218	US 1973-341639	19730315 <--
PRAI	CH 1970-16548	A	19701109		
	US 1971-192592	A3	19711026		

AB Twenty-three triazines I [R = tert-Bu or EtMe2C; R1 = e.g. H, alkyl, CH:CH2, cyclohexyl, CH2Ph, CH2SBu, or CH2C6H2(Bu-tert)2OH-3,5,4], which were used to stabilize polypropylene (II) [9003-07-0] against oxidation at increased temperature, were prepared by reaction of 4,3,5-HO(R)2C6H2OC(:NH)N:C(NH2)OC6H2(R)2OH-3,5,4 with R1COCl. Thus, treatment of 111 g 4,3,5-HO(tert-Bu)2C6H2OCN with NH3 (g) at 0-5.deg. gave 128 g bis(4-hydroxy-3,5-di-tert-butylphenyl) imidodicarboximidate (III) [35649-09-3]. Heating 10.2 g III and 4.8 g lauroyl chloride in PhMe containing Et3N at 50.deg. gave 10.5 g 2,4-bis(3,5-di-tert-butyl-4-hydroxyphenoxy)-6-undecyl-s-triazine (I, R = tert-Bu, R1 = undecyl) (IV) [35649-10-6]. II containing 0.2% IV was stable to heating at 135.deg. and 147.deg. for 695 and 160 hr, resp., as compared with 20 and 10 hr, resp., for unstabilized II.
IT 38760-68-8
RL: USES (Uses)
(antioxidants, for polypropylene)
RN 38760-68-8 CAPLUS
CN Phenol, 4,4',4'',4'''-[[1,8-octanediylbis(1,3,5-triazine-6,2,4-triyl)]tetrakis(oxy)]tetrakis[2,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)

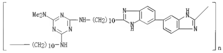
L11 ANSWER 121 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L11 ANSWER 122 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1972:86396 CAPLUS
DN 76:86396
OREF 76:13901a,13904a
TI Polybenzimidazoles derived from s-triazines
IN Kray, Raymond J.; Winter, Roland A. E.
PA Ciba-Geigy A.-G.
SO Ger. Offen., 24 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

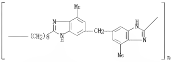
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2121179		19711111	DE 1971-2121179	19710429 <--
	CA 963994			CA	
	FR 2086511			FR	
	GB 1327923			GB	
	US 3642720		19720215	US	19700430 <--
PRAI	US		19700430		

AB Heat-resistant triazine-containing benzimidazole derivative polymers I or II(X = O, S, SO2, CH2, or O: [R1 = divalent organic group; R2 = H, amine, Cl, or amide) are prepared by polymerization of a triazine dicarboxycylic acid with an aromatic tetraamine. Thus, polymerization of 28.685g 2,4-bis[(5-carboxypentyl)amino]-6-(dimethylamino)-s-triazine and 16.07g 3,3',4,4'-biphenyltetramine 3.5 hr at 265.deg. gives I(X = O, R1 = pentamethylene, R2 = dimethylamine), intrinsic viscosity (DMSO, 100.deg.) 0.490. The polymer can be molded at 288.deg./1000 psi, and showed little weight loss in 90 hr at 250.deg..
IT 36494-95-8P
RL: SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(polybenzimidazoles, with glass fiber)
RN 36494-95-8 CAPLUS
CN Poly[[5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,10-decanediylimino[6-(dimethylamino)-1,3,5-triazine-2,4-diyl]imino-1,10-decanediyl] (9CI) (CA INDEX NAME)

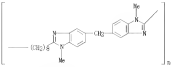


L11 ANSWER 123 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1971:464436 CAPLUS
DN 75:64436
OREF 75:10229a,10232a
TI Synthesis and investigation of polybenzimidazoles containing alkyl substituents in aromatic nuclei
AU Korshak, V. V.; Teplyakov, M. M.; Fedorova, R. D.
CS Inst. Elem.-Org. Compd., Moscow, USSR
SO Journal of Polymer Science, Part A-1: Polymer Chemistry (1971), 9(4), 1027-43
CODEN: JPSPC3; ISSN: 0449-296X
DT Journal
LA English
GI For diagram(s), see printed CA Issue.
AB Polybenzimidazoles (I) (or their tautomers) where R1 = a single bond or CH2, R2 = Me or H, R3 = Me or H; and R4 = m- or p-phenylene, (CH2)4, (CH2)8, or p-C6H4OC6H4-p, were prepared from 3,3'-diamino-5,5'-dimethylbenzidine, bis[3-(methylamino)-4-aminophenyl]methane, 3,3',-4,4'-tetraamino-5,5'-dimethyldiphenythane (II), 3,3'-diamino4,4'-bis(methylamino)-5,5'-dimethylbipyl, bis[3-amino-4-(methylamino)phenyl]methane, 3,3',4,4'-tetraaminodiphenylmethane, and (or) bis[3-amino-4-(methylamino)-5-methylphenyl]methane and di-Ph esters of adipic acid, sebacic acid, iso- phthalic acid, or terephthalic acid or of 4,4'-dicarboxydiphenyl oxide by solid-phase polyheterocyclization. Most of the tetramines were prepared by reduction of the bisnitroamines prepared by nitration of the corresponding diamines. The ir spectrum of poly[2,2'-(m-phenylene)-4,4'-dimethyl-6,6'-dibenzimidazolyl-methane] (prepared from isophthalic acid and II) was in good agreement with that of the model compound 2,2'-m-phenylenedibenzimidazole, prepared from di-Ph isophthalate and o-phenylenediamine. I had high heat resistance, were soluble in organic solvents, and gave strong, elastic films. I (R3 = Me) were more soluble than I (R3 = H). I (R2 = Me) were most thermally stable but less soluble in organic solvents and slightly less chemical resistant and gave films with higher tensile strength (but lower elasticity) than those from I (R3 = Me). Polybenzimidazopyrrolones (III) prepared from II and pyromellitic acid dianhydride were insol. in organic solvents but swelled in concentrated H2SO4. The polypyromellitimide (IV) prepared from 3,3'-dimethyl-4,4'-diaminodiphenylmethane and pyromellitic acid dianhydride were insol. in Me2SO, AcNMe2, and HCO2h. I (R1 = CH2; R2 = H; R3 = Me and Et, Me2CH, or PhCH2, R4 = m-phenylene) were prepared from the appropriate alkyl-substituted tetraamines, prepared by boiling the N-Me tetraamines in EtOH, Me2CHOH, or PhCH2OH in the presence of catalysts; they did not differ significantly in solubility from that of the corresponding I (R3 = Me) and had lower heat resistance.
IT 32993-26-3P 32993-31-0P 32993-59-2P
32993-64-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 32993-26-3 CAPLUS
CN Poly[(7-methyl-1H-benzimidazole-2,5-diyl)methylene(7-methyl-1H-benzimidazole-5,2-diyl)-1,8-octanediyl] (9CI) (CA INDEX NAME)

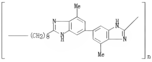
L11 ANSWER 123 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 32993-31-0 CAPLUS
CN Poly[(1-methyl-1H-benzimidazole-2,5-diyl)methylene(1-methyl-1H-benzimidazole-5,2-diyl)-1,8-octanediyl] (9CI) (CA INDEX NAME)

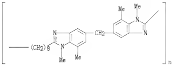


RN 32993-59-2 CAPLUS
CN Poly[(7,7'-dimethyl[5,5'-bi-1H-benzimidazole]-2,2'-diyl)-1,8-octanediyl] (9CI) (CA INDEX NAME)



RN 32993-64-9 CAPLUS
CN Poly[(1,7-dimethyl-1H-benzimidazole-2,5-diyl)methylene(1,7-dimethyl-1H-benzimidazole-5,2-diyl)-1,8-octanediyl] (9CI) (CA INDEX NAME)

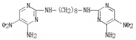
L11 ANSWER 123 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



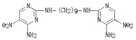
L11 ANSWER 124 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1971:405931 CAPLUS
DN 75:5931
OREF 75:987a,990a
TI Bis[4-amino-5-nitropyrimidinyl)amino]alkanes
IN Takamatsu, Takeshi; Okumura, Shigeo; Nukada, Toshi
SO Jpn. Tokkyo Koho, 3 pp.
CODEN: JAXXAD
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 45041588	B4	19701226	JP	19671218 <--

AB In an example, 2-chloro-4-amino-5-nitropyrimidine was heated with H2N(CH2)6NH2 and Et3N in dioxane to give 1,6-bis[(4-amino-5-nitro-2-pyrimidinyl)amino]hexane.
IT 31374-16-0P 31374-17-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 31374-16-0 CAPLUS
CN Pyrimidine, 2,2'-(octamethylenediimino)bis[4-amino-5-nitro- (8CI) (CA INDEX NAME)



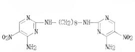
RN 31374-17-1 CAPLUS
CN Pyrimidine, 2,2'-(nonamethylenediimino)bis[4-amino-5-nitro- (8CI) (CA INDEX NAME)



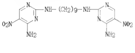
L11 ANSWER 125 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1971:100093 CAPLUS
DN 74:100093
OREF 74:16301a,16304a
TI Bispyrimidines
IN Okumura, Shigeo; Nukata, Toshi; Takamatsu, Tsuyoshi
SO Jpn. Tokkyo Koho, 3 pp.
CODEN: JAXXAD
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE	
PI	JP 45038056	B4	19701202	JP	19670529	<--

GI For diagram(s), see printed CA Issue.
AB I, useful as an antibacterial and antituberculous drug, is manufactured Nitrocyan-acetaldehyde (2.3 g) is refluxed 2 hr in 20 ml dioxane containing 6.2 g trimethylenebisguanidine sulfate and 100 ml H2O added to give 3.15 g I (X = 5-NO2-6-NH2, n = 3), m. 253-5° (DMF). Similarly prepared are I (X, n, and m.p. given): 5-NO2-6-NH2, 6, 213-17°; 4-NH2-5-NO2-6-OH, 6, >300°; 5-NO2-6-NH2, 8, 227-9.5°; 5-NO2-6-NH2, 9, 185-7.5°.
IT 31374-16-0P 31374-17-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 31374-16-0 CAPLUS
CN Pyrimidine, 2,2'-(octamethylenediimino)bis[4-amino-5-nitro- (8CI) (CA INDEX NAME)



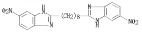
RN 31374-17-1 CAPLUS
CN Pyrimidine, 2,2'-(nonamethylenediimino)bis[4-amino-5-nitro- (8CI) (CA INDEX NAME)



L11 ANSWER 126 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1970:466582 CAPLUS
DN 73:66582
OREF 73:10907a,10910a
TI Preventing fog in photographic color development
IN Oi, Reiichi; Shimamura, Isao; Shishido, Tadao
PA Fuji Photo Film Co., Ltd.
SO Ger. Offen., 26 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE	
PI	DE 1952253	A	19700506	DE 1969-1952253	19691016	<--
	DE 1952253	C3	19790322			
	GB 1249531	A	19711013	GB 1969-1249531	19691021	<--
	US 3615501	A	19711026	US 1969-868583	19691022	<--
PRAI	JP 1968-76923	A	19681022			

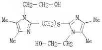
GI For diagram(s), see printed CA Issue.
AB Antifogging agents (I) for multilayer color photographic materials are prepared by condensing o-C6H4(NH2)2 with appropriate carboxylic acids followed by nitration. The compds. prepared were I (n = 3,4,6) and II (n = 1, 2, 4, 8). The color development can be carried out at a higher temperature (30-70°) by incorporating I in a black-white developer in the coupler-in-emulsion type process or in a cyan developer in the coupler-in-developer type process, without causing fogs.
IT 28742-73-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 28742-73-6 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis[5-nitro- (9CI) (CA INDEX NAME)



L11 ANSWER 127 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1970:121529 CAPLUS
DN 72:121529
OREF 72:21859a,21862a
TI Imidazoles
PA Consortium fuer Elektrochemische Industrie G.m.b.H.
SO Fr., 16 pp.
CODEN: FRXXAK
DT Patent
LA French
FAN.CNT 1

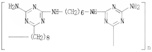
	PATENT NO	KIND	DATE	APPLICATION NO	DATE	
PI	FR 1578644		19690814	FR	19680902	<--
	GB 1196497			GB		
	US 3654267		19720404	US	19700325	<--
PRAI	DE		19670902			

GI For diagram(s), see printed CA Issue.
AB Oxazoles are treated with NH3 or a primary amine in the presence of a composition liberating H ions with a dissociation constant in H2O ≥ 10-10, to give I useful as chemical intermediates in the preparation of pesticides, pharmaceuticals, and textile finishes. Thus, 2,4,5-trimethyloxazole was refluxed for 5 hr with 916 g ethanolamine and 16.6 g AcOH to give I [R = CH2CH2OH, R1 = Me], m. 149° and b10 205°. The following I were also prepared (R, R1, m.p., and b.p./mm given): CH2Ph, Et, -, 172° /1;H, Me, -, 137° 3,(CH2)6NH2, Me, -, 116-17° /0.02;Bu, Pr, -, 97-8° /0.05;CH2CHEtBu, Me, -, 99° /0.07;Ph, Me, -, 112-14° /0.3;C12H25, Me, -, 176-8° /1;CH2CH2OH, Pr, 75°, 195-200° /10;Me2N(CH2)3, C11H23, -, 178-80° /0.5;CH2CH2OH, C17H35, 86°, -; (CH2)3OH, Me, 108°, 140° /0.5,(CH2)3OH, C11H23, 44°, 200° /0.5;Me2NCH2CH2, C11H23, -, 157° /0.5;BuCHEtCH2O(CH2)3, C11H23, -, 180-200° /0.01-0.001;CH2CH2OH, CH2:CH(CH2)8, 55°, -; CH2CH2OH, H, 103-6°, -. II, m. 114°, b0.04 218-20°, III m. 262°, and 1-(β-hydroxyethyl)-2-methyl-5-phenylimidazole, m. 117°, were also prepared.
IT 26860-64-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 26860-64-0 CAPLUS
CN Imidazole-1-ethanol, 2,2'-octamethylenebis[4,5-dimethyl- (8CI) (CA INDEX NAME)

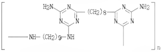


L11 ANSWER 128 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1970:44276 CAPLUS
DN 72:44276
OREF 72:8157a,8160a
TI Infrared absorption spectral method for studying the structure of polybibenzimidazoles and polybibenzimidazolines
AU Fedorova, E. F.; Pokrovskii, E. I.; Adrova, N. A.; Koton, M. M.
CS USSR
SO Prikl. Spektrosk., Mater. Soveshch., 16th (1969), Meeting Date 1965, Volume 2, 119-21. Editor(s): Belyanin, V. B. Publisher: Izd. "Nauka", Moscow, USSR.
CODEN: 21TXAX
DT Conference
LA Russian
GI For diagram(s), see printed CA Issue.
AB The ir spectra of polymers of general structures I and II are presented and discussed. I (x = 0, 1, 2, 3, 4, and 8) and the following II were studied (Z and Y given): CH, p-C6H4; P, O; P(O), O; B, p-C6H4; B, O.
IT 25035-65-8
RL: PRP (Properties)
(spectrum of, ir)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)

L11 ANSWER 129 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1970 44200 CAPLUS
DN 72 44200
OREF 72 8145a,8148a
TI Synthesis of polyguanamines
AU Ebihara, Shigeyoshi, Okata, Akira
CS Res Inst Polym Text , Yokohama, Japan
SO Yuki Gosei Kagaku Kyokaishi (1969), 27(11), 1095-100
CODEN YGKKAE, ISSN 0037-9980
DT Journal
LA Japanese
GI For diagram(s), see printed CA Issue
AB Hexamethylenedibiguanide (I) (2 11 g) and 2 18 g PhOAc were refluxed 1 hr under N to give 1 3 g Ia, m 121-2° . Polyguanamides (linear polymers containing 2-imino-4-amino-s-triazine rings in the chain) were synthesized by the polycondensation reaction between aliphatic dibiguanides (II) and aliphatic dicarboxylic acid derivs (III) As II, nonamethylene- and ethylenedibiguanides and I were used As III, di-Me, di-Ph (IV), and bis(p-nitrophenyl) sebacates and di-Ph adipate were used E g., 0 4366 g I and 0 5411 g IV were heated 1 hr under N at 220-30° /1mm and 220-30° for 3 hr to give 98% yellow polymer, m 155-8° , viscosity 0.35 (0 1 g in 100 ml m-cresol). The polymers were soluble in H2SO4, CF3CO2H, and m-cresol, and insol in acetone, C6H6, CHCl3, MeOH, and H2O
IT 25718-39-2P 25718-40-5P 25718-41-6P
25718-43-8P
RL SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 25718-39-2 CAPLUS
CN Poly[(6-amino-1,3,5-triazine-2,4-diyl)imino-1,6-hexanediylimino(6-amino-1,3,5-triazine-2,4-diyl)-1,8-octanediyl] (9CI) (CA INDEX NAME)

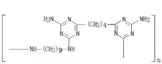


RN 25718-40-5 CAPLUS
CN Poly[(6-amino-1,3,5-triazine-2,4-diyl)-1,8-octanediyl(6-amino-1,3,5-triazine-2,4-diyl)imino-1,9-nonanediylimino] (9CI) (CA INDEX NAME)

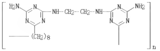


RN 25718-41-6 CAPLUS
CN Poly[(6-amino-1,3,5-triazine-2,4-diyl)-1,4-butanediyl(6-amino-1,3,5-triazine-2,4-diyl)imino-1,9-nonanediylimino] (9CI) (CA INDEX NAME)

L11 ANSWER 129 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



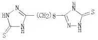
RN 25718-43-8 CAPLUS
CN Poly[(6-amino-1,3,5-triazine-2,4-diyl)imino-1,2-ethanediylimino(6-amino-1,3,5-triazine-2,4-diyl)-1,8-octanediyl] (9CI) (CA INDEX NAME)



L11 ANSWER 130 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1970 7915 CAPLUS
DN 72 7915
OREF 72 1452h,1453a
TI Antibronzing photographic materials
IN Willems, Jozef F , Vandenberghe, Antoon L.
PA Gevaert-Agfa N V
SO U S , 6 pp
CODEN USXXAM
DT Patent
LA English
FAN CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	US 3438777	A	19690415	US 1967-615389	19670213 <--
	NL 6702133	A	19670425	NL 1967-2133	19670213 <--
	BE 694030	A	19670814	BE 1967-694030	19670214 <--
PRAI	GB 1966-6332	A	19660214		

AB In photographic materials and processes, 3,3'-bis-[Δ2-1,2,4-triazoline-5-thiones] or their tautomeric forms can serve as antibronzing or antisludge agents Thus, to a solution of NaOMe prepared from 1 1. of MeOH and 1 mole of na was added 1 mole of NH2CSNHNH2 (I) and 0.5 mole of (COOEt) 2 (II) The mixture was boiled 16 hrs resulting in the crystallization of the Na salt of III Purification was achieved by dissolving the product in H2O, filtering off unreacted I, acidification with HOAc, yielding 3,3'-bis[Δ2-1,2,4-triazoline-5-thione] (III), m. >260° (from H2O, EtOH, or a mixture of these), yield 27% In place of II, the following esters could be used to make analogous products: CH2(CO2Et)2, MeCH(CO2Et)2, EtCH(CO2Et)2, (CH2CO2Et)2, CH2(CH2CO2Et)2, (CH2CH2CO2Et)2, (CH2CH2CH2CH2CO2Et)2, diethyl tartrate, diethyl fumarate, diethyl maleate, dimethyl isophthalate, dimethyl terephthalate, and dimethyl 2,6-naphthalene-dicarboxylate. A gelatin AgCl emulsion prepared from 28 3 g of AgNO3 and 113 2 g of gelatin per 1000 g of emulsion was coated on a baryta-coated paper support so that after drying, AgCl equivalent to 1 5 g of AgNO3 was present per m2 of paper. The paper was exposed to light through a pattern and developed 5 min. at 20° in a bath composed of 800 cc H2O, 1 5 g p-MeNH-C6H4OH.0.5HSO4, 50 g Na2SO3, 6 g. p-HOC6H4OH, 32 g Na2CO3, 2 g KBr, and H2O to 1 1 After rinsing, the exposed strips were fixed in a solution of 800 cc H2O, 120 g Na2S2O3, 25 g K2S2O5, and H2O to 1 1. The washed strips were dried by pressing the image side on polished plates at 80° The d after hot glazing was significantly less than strips made in the same manner but containing 200 mg of III per 1000 g of emulsion. The emulsion containing III also showed good antibronzing action.
IT 7271-38-7
RL USES (Uses)
(photographic antibronzing agent)
RN 7271-38-7 CAPLUS
CN Δ2-1,2,4-Triazoline-5-thione, 3,3'-octamethylenebis- (8CI) (CA INDEX NAME)



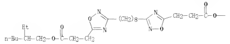
L11 ANSWER 131 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1969:524447 CAPLUS
DN 71:124447
OREF 71:23135a,23138a
TI Oxadiazoles
IN McKillip, William J.
SO U.S., 6 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO	DATE
PI	US 3471509	A	19691007	US 1965-464841	19650617 <--
PRAI	US 1965-464841	A	19650617		

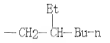
GI For diagram(s), see printed CA Issue
AB 1,2,4-Oxadiazoles (I) were prepared by reaction of a nitrile or dinitrile with H2NOH HCl to form an amidoxime, which was subsequently reacted with the anhydride of a dibasic acid. I derivs. are useful as plasticizers and antistatic agents. Thus, a cold solution of 414 g H2NOH HCl in 1500 ml MeOH was added to a solution of 240 g NaOH in 200 ml MeOH, the solution was filtered to remove NaCl, 412 g. PhCN was added to the filtrate, the mixture was refluxed 7.5 hrs., volatiles were removed on a flash evaporator, and the product was taken up in Et2O, filtered, and evaporated to give 471 g amidoxime A solution of 600 ml. PhMe, 210.8 g amidoxime, and 176 7 g glutaric anhydride was refluxed 25 hrs. under N with continuous distillation of water. 2-Ethylhexanol (221 g.) and 0 75 g. p-toluenesulfonic acid were added to the reaction, the mixture was refluxed 34 hrs at 130-70° to give 2-ethylhexyl 4-(3-phenyl-1,2,4-oxadiazol-5-yl)butyrate (II), b0 15-0.18 186-96° . The following were similarly prepared (compound and b p./mm given): Bu 4-(3-phenyl-1,2,4-oxadiazol-5-yl)butyrate, 159 5° /0 07,Bu 2-(3-phenyl-1,2,4-oxadiazol-5-yl)benzoate, -; Bu 4-(3-undecyl-1,2,4-oxadiazol-5-yl)butyrate, -; Bu 2-(3-phenyl-1,2,4-oxadiazol-5-yl)-3,6-methylene-4-cyclohexene-1-carboxylate, 183-90° /0 25-0 75,Bu 3-(3-phenyl-1,2,4-oxadiazol-5-yl)-2,2,3,3-tetra(1-propenyl)propionate, -, 1,4-bis-(3-phenyl-1,2,4-oxadiazol-5-yl)butane, -, Bu 2-(3-phenyl-1,2,4-oxadiazol-5-yl)-4-cyclohexene-1-carboxylate, -, 2-ethylhexyl 2-(3-phenyl-1,2,4-oxadiazol-5-yl)-4-cyclohexene-1-carboxylate, -; tridecyl 4-(3-phenyl-1,2,4-oxadiazol-5-yl)butyrate, - Also prepared were bis(3-phenyl-1,2,4-oxadiazol-5-ylmethyl) sulfone, 1,7-(3-phenyl-1,2,4-oxadiazol-5-yl)heptane, 1,4-bis(3-phenyl-1,-2,4-oxadiazol-5-yl)benzene, bis(2-ethylhexyl) 3,3'-m-phenylenebis-1,2,4-oxadiazole-5-butyrate, 1,3-butylene bis(3-phenyl-1,2,4-oxadiazole-5-propionate) (sic), 3-(3-phenyl-1,2,4-oxadiazol-5-yl)-propionate ester of poly(1,3-butylene adipate), bis(2-ethylhexyl) 1,2-cyclobutylenebis-1,2,4-oxadiazole-5-propionate, bis(2-ethylhexyl) 3,3'-octamethylenebis-1,2,4-oxadiazole-5-propionate, and bis(2-ethylhexyl) 3,3'-tetramethylenebis(oxyethylene)bis(1,2,4-oxadiazole-5-propionate) Poly(vinyl chloride) (Geon 101) (100 parts) was milled with 50 parts II at 320° F The product had tensile strength 3116 psi , 100% modulus 1346 psi , 374% elongation, Durometer hardness 81, 2 41% hexane extractability, 18 23% soap solution extractability, and 3 32% mineral oil extractability
IT 24088-57-1P
RL SPN (Synthetic preparation), PREP (Preparation)
(preparation of)
RN 24088-57-1 CAPLUS
CN 1,2,4-Oxadiazole-5-propionic acid, 3,3'-octamethylenebis-, bis(2-ethylhexyl) ester (8CI) (CA INDEX NAME)

L11 ANSWER 131 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

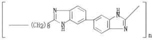
PAGE 1-A



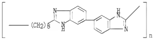
PAGE 1-B



L11 ANSWER 132 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1969:502364 CAPLUS
DN 71:102364
OREF 71:19093a,19096a
TI Crystallinity of poly(2-2'-octamethylene-5,5'-dibenzimidazole) and structural changes resulting from heat treatment
AU Frenkel, S. Ya.; Ginzburg, B. M.
CS Inst. High Mol. Compounds, Leningrad, USSR
SO Journal of Polymer Science, Polymer Symposia (1967), 22(Pt. 2), 813-25
CODEN: JPYCAQ; ISSN: 0360-8905
DT Journal
LA English
AB It is shown in the case of poly(2,2'-octamethylene - 5,5'-dibenzimidazole) that poly(alkylenediben-zimidazoles) can be crystallized. The studies of fibers and films prepared from formic acid solution involved different exptl. techniques, such as x-ray diffraction, ir spectroscopy, D.T.A., and thermogravimetry (TGM). The x-ray patterns reveal that the highly ordered crystallites must be present in the fibers as well as in the films. The x-ray data suggest a possible model of chain conformation within crystallites. The heating of films and fibers to 120-140° (far below the previously reported softening point) brings about amorphization. In the same temperature range, is observed a discontinuity in the TGM curve, an endothermic peak in the D.T.A., and most intense changes in the ir absorption spectra. The crystalline structure is not restored on cooling and can be obtained again only after treatment with formic acid. The weight losses of fibers and films on heating accompanied by amorphization are about 15%; nevertheless, thermal degradation seems not to take place, the weight losses of the initial polymer, up to 400°, being less than 2%. Formation and thermal degeneration of solvated polymer-solvent crystals are observed. The hypothesis explains fully all the peculiarities of the poly(2,2'-octamethylene-5,5'-dibenzimidazole) crystallization habit.
IT 25035-65-8
RL: USES (Uses)
(crystalline behavior of, heat treatment in relation to)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



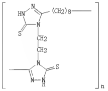
L11 ANSWER 133 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1969:439900 CAPLUS
DN 71:39900
OREF 71:7391a,7394a
TI Substituted aliphatic polybenzimidazoles as membrane separator materials
AU Trischler, Floyd D.; Levine, Harold H.
CS Narmco Res. and Develop. Div., Whittaker Corp., San Diego, CA, USA
SO Journal of Applied Polymer Science (1969), 13(1), 101-6
CODEN: JAPNAB; ISSN: 0021-8995
DT Journal
LA English
AB Aliphatic polybenzimidazoles were modified to increase their hydrophilicity. The modified polymer can be used as a sterilizable battery separator in space vehicles. Poly(2,2'-octamethylene - 5,5'-bibenzimidazole) was sulfonated, N-hydroxyethylated with BrCH2CH2OH and NaH, and N-cyanoethylated and hydrolyzed to the N-carboxyethyl derivative. The sulfonated polymer was too insol. for processing and the other derivs. had too great sp. resistance for use as battery separators. Carboxyethylated poly-(2,2'-hexamethylene - 5,5'-bibenzimidazole) had tensile strength 10,600 psi. and sp. resistance 90 ohm-cm., and met the requirements for a sterilizable battery separator.
IT 25035-65-8
RL: USES (Uses)
(carboxyethylated, membranes from, as battery separators)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



L11 ANSWER 134 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1969:413549 CAPLUS
DN 71:13549
OREF 71:2505a,2508a
TI Poly(1-acylthiosemicarbazides)
IN Shtil'man, M. I.; Fedotova, O. Ya.; Kolesnikov, G. S.; Ustinova, M. S.
PA Mendeleev, D. I., Chemical-Technological Institute, Moscow
SO U.S.S.R.
From: Izobret., Prom. Obraztsy, Tovarnye Znaki 1968, 45(34), 89.
CODEN: URXXAF
DT Patent
LA Russian
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI SU 230417		19681030	SU	19670720 <--

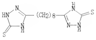
AB Dicarboxylic acid dihydrazides are treated with diisothiocyanates or with diformethyl(?) derivs. of dithiocarbamic acids to give polymers capable of forming complexes with metals.
IT 27120-51-0P
RL: PREP (Preparation)
(preparation of)
RN 27120-51-0 CAPLUS
CN Poly[(1,5-dihydro-5-thioxo-4H-1,2,4-triazole-3,4-diyl)-1,2-ethanediyl(1,5-dihydro-5-thioxo-4H-1,2,4-triazole-4,3-diyl)-1,8-octanediyl] (9CI) (CA INDEX NAME)



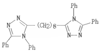
L11 ANSWER 135 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1969 107521 CAPLUS
DN 70 107521
OREF 70 20109a, 20112a
TI Photographic antibronzing agent
IN Willems, Jozef F , Vandenberghe, Antoon L
PA Gevaert-Agfa N V
SO Brit , 9 pp
CODEN BRXXAA
DT Patent
LA English
FAN CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	GB 1138587		19690101	GB 1966-6332	19660214 <--
	DE 1522425			DE	
	FR 1511336			FR	

GI For diagram(s), see printed CA Issue
AB The title agents, 3,3'-bis(Δ2-1,2,4-triazoline-5-thiones) (I, R and(or) R' = H), may be included in the Ag emulsion, in a H2O-permeable layer on the same side of the support, or may be added after exposure from a solution, e g a processing bath I are prepared by dissolving 1 g -atom of Na in 1 1 MeOH, adding 1 mole RNHCSNHNH2 or H2NCSNHR'NH2 and 0 5 mole X(CO2R2)2, and refluxing for 16 hrs while the I Na salt crystallizes. After evaporation of solvent, the residue is taken up in 1 1 H2O, any semicarbazide filtered off, and the filtrate acidified with AcOH, the I may be crystallized from H2O and(or) alc. Maleate and fumarate esters give I (X = CH2CHOR3) by addition of alkoxide to the double bond. The following I, m >260° were prepared (R, R', X, and % yield given): H, H, direct link, 27, H, H, CH2, 45, H, H, CHMe, 15; H, H, CHEt, 20, H, H, CH2CH2, 66, H, H, (CH2)3, 63, H, H, (CH2)4, 54, H, H, (CH2)8, 84; H, H, (CHOH)2, 38, H, H, CH(OMe)CH2, 39 (fumarate and NaOMe, 25% from maleate); H, H, CH(OEt)CH2, 15(fumarate and NaOEt); H, H, m-C6H4, 48, H, H, p-C6H4, 65, H, H, 2,6-C10H6, 76, H, Me, p-C6H4, 56; Me, H, p-C6H4, 74.
IT 7271-38-7P
RL IMF (Industrial manufacture); PREP (Preparation)
(preparation of)
RN 7271-38-7 CAPLUS
CN Δ2-1,2,4-Triazoline-5-thione, 3,3'-octamethylenebis- (8CI) (CA INDEX NAME)



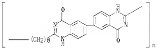
L11 ANSWER 136 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1969 28874 CAPLUS
DN 70 28874
OREF 70 5401a
TI Preparation of α,ω-bis(1,2,4-triazol-3-yl)alkanes
AU Spasov, Aleksandr, Demirov, Georgi
CS Med Inst , Sofia, Bulg
SO Chemische Berichte (1968), 101(12), 4238-40
CODEN CHBEAM, ISSN 0009-2940
DT Journal
LA German
AB The reaction of PhC(NNH2)NHPh with ClOC(CH2)nCOCl (n = 0-8) gave α,ω-bis(4,5-diphenyl-1,2,4-triazol-3-yl) alkanes, in good yield
IT 21068-91-7P
RL SPN (Synthetic preparation), PREP (Preparation)
(preparation of)
RN 21068-91-7 CAPLUS
CN 4H-1,2,4-Triazole, 3,3'-octamethylenebis[4,5-diphenyl- (8CI) (CA INDEX NAME)



L11 ANSWER 137 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1969 12135 CAPLUS
DN 70 12135
OREF 70 2289a, 2292a
TI Polyquinazolones
IN Shono, Toshiyuki, Izumi, Masahiro; Matsumura, Shigeru, Asano, Nobuyuki
PA Sumitomo Electric Industries, Ltd
SO Jpn Tokkyo Koho, 3 pp
CODEN JAXXAD
DT Patent
LA Japanese
FAN CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO.	DATE
PI	JP 43015993	B	19680705	JP	19650323 <--

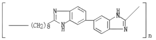
GI For diagram(s), see printed CA Issue
AB A solution of [4,3-H2N(HO2C)C6H3]2 (m 275°)(I) 27.2 and m-[EtO(HN)C]2C6H4 (II) 22 in AcNMe2 200 parts was heated for 2 hrs. at 100° ,2 hrs at 165° ,and poured into H2O The solid was dried and heated for 2 hrs at 250° and 1 mm to give 36 parts polyquinazolone of intrinsic viscosity [η] 0 95 (0.5% in HCO2H). The following polymers were prepared (monomer and [η] given): [4,3-H2N(HO2C)C6H3]CH2 (m 254°)+ II, 0 75 (0 5% in Me2SO); EtO(HN)C(CH2)8C(NH)OEt + I, 0.82 (0 15% in Me2SO).
IT 28729-35-3P
RL PREP (Preparation)
(preparation of)
RN 28729-35-3 CAPLUS
CN Poly[(1,1',4,4'-tetrahydro-4,4'-dioxo[6,6'-biquinazoline]-2,2'-diyl)-1,8-octanediyl] (9CI) (CA INDEX NAME)



L11 ANSWER 138 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1969:12127 CAPLUS
DN 70:12127
OREF 70:2289a, 2292a
TI Polybenzimidazoles
IN Shono, Toshiyuki; Izumi, Masahiro; Matsumura, Shigeru, Asano, Nobuyuki
PA Sumitomo Electric Industries, Ltd.
SO Jpn. Tokkyo Koho, 3 pp
CODEN: JAXXAD
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO	DATE
PI	JP 43015995	B4	19680705	JP	19650323 <--

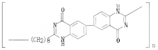
AB A solution of 3,4-(H2N)2C6H3C6H3(NH2)2-3,4 21 6 and m-(EtO(HN)C]2C6H4 22 in AcNMe2 150 parts was heated 2 hrs. at 100° ,2 hrs. at 165° , and poured into H2O. The solid was dried and heated 2 hrs at 250° /1mm. to give 29.5 parts polybenzimidazole of intrinsic viscosity [η] 1.45 (0.25% in HCO2H). Similar reaction with EtO(HN)C(CH2)8C(:NH)OEt gave a polymer of [η] 1 08
IT 25035-65-8P
RL: PREP (Preparation)
(preparation of)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



L11 ANSWER 139 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1969 4813 CAPLUS
DN 70 4813
OREF 70 937a,940a
TI Heat-resistant condensation polymers
IN Yodo, Naoya, Kurihara, Masaru
PA Toyo Rayon Co , Ltd
SO Jpn Tokkyo Koho, 5 pp
CODEN JAXXAD
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	JP 43011239	B	19680511	JP	19640317 <--

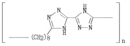
AB A heat resistant condensation polymer having a quinazoline ring is provided by condensation at 140-60° of an aromatic diaminodicarboxylic acid or ester, such as 3,3'-benzidinedicarboxylic acid (I), 2,5-diaminoterephthalic acid, 4,6-diaminoisophthalic acid, 2,7-dicarboxy-3,6-diaminonaphthalene, and a diamide, such as terephthalamide (II) or 4,4'-isopropylidenebisbenzamide, in the presence of an inorg. acid such as polyphosphoric acid (III), fuming H2SO4, or P2O5. Thus, 1.36 parts I (m 300°), synthesized from o-nitrobenzoic acid by benzidine rearrangement, was powdered. III (60 parts) was added to a N-filled flask at 80° , 1.65 parts II added, powdered I added slowly, and the mixture polymerized by heating at 140° for 1 hr, and at 150-60° for 25 hrs. The polymer was a yellowish brown powder, m 540-600° , ηinh at 30° of 0.5% solution in H2SO4 was 1 07. The ir absorption spectra indicated the existence of quinazoline rings The polymer was soluble in H2SO4, HCO2H, N-methylpyrrolidone, and hexamethylphosphoramide. From the last solvent a very tough pale brown film was prepared
IT 28729-35-3P
RL PREP (Preparation)
(preparation of)
RN 28729-35-3 CAPLUS
CN Poly[(1,1',4,4'-tetrahydro-4,4'-dioxo[6,6'-biquinazoline]-2,2'-diyl)-1,8-octanediyl] (9CI) (CA INDEX NAME)



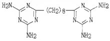
L11 ANSWER 140 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1968 507280 CAPLUS
DN 69 107280
OREF 69 20131a,20134a
TI Poly(1,2,4-triazoles)
IN Shono, Toshiyuki, Izumi, Masahiro, Matsumura, Shigeru, Asano, Nobuyuki
PA Sumitomo Electric Industries, Ltd
SO Jpn Tokkyo Koho, 3 pp
CODEN JAXXAD
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	JP 43014479	B4	19680619	JP	19650320 <--

AB The title compds are prepared by condensation polymerization of a diimino ether of a dibasic acid, such as isophthalic bis(iminoethyl ether) (I), and a dibasic acid diimidohydrazide, such as H2NNHC(:NH)C(:NH)NHNH2 (II) II is prepared from EtOC(:NH)C(:NH)OEt and N2H4 H2O Thus, 11 6 parts I was dissolved in 150 parts AcNMe2, 22 parts of an AcNMe2 solution of II added, and the mixture heated at 100° for 2 hrs. to give a polymer A transparent film was prepared from an oxalic acid solution of the polymer. Further heating of the polymer at 1 mm. and 250° for 2 hrs. gave 20 5 parts slightly yellow poly-1,2,4-triazole.
IT 31851-43-1P
RL PREP (Preparation)
(preparation of)
RN 31851-43-1 CAPLUS
CN Poly([3,3'-bi-1H-1,2,4-triazole]-5,5'-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)



L11 ANSWER 141 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1968 496674 CAPLUS
DN 69 96674
OREF 69 18103a,18106a
TI Preparation of diguanamines in dimethyl sulfoxide
AU Booth, M J , Lambie, A J
CS Res Dev Dep , B I P Chem Ltd , Oldbury, UK
SO Chemistry & Industry (London, United Kingdom) (1968), (31), 1047
CODEN CHINAG, ISSN 0009-3068
DT Journal
LA English
GI For diagram(s), see printed CA Issue.
AB I (n = 2, 3, 4, or 8) are prepared in high yields by using Me2SO instead of the usual alkoxyethanols and other high boiling alcs. as the reaction medium. The reaction of dicyandiamide with dinitriles in the molar ratio 2 5 1 0 in Me2SO at 130-40° 2 hrs. in the presence of NaOMe catalyst gave these results (dinitrile, moles NaOMe/mole dinitrile, product, yield, and m p of product given): succinonitrile, 0.25, succinoguanamine (II, n = 2), 99 1%, 360° ,glutaronitrile, 0.25, glutaroguanamine (II, n = 3), 91 0%, 325° ;adiponitrile, 1.0, adipoguanamine (II, n = 4), 99 6%, 289-94° ,sebaconitrile, 2.0, sebacoguanamine (II, n = 8), 96 5%, 302-10° . The diguanamines crystallized during the reaction, on cooling, or after dilution of the reaction mixture with water
IT 4128-90-9P
RL SPN (Synthetic preparation), PREP (Preparation)
(preparation of)
RN 4128-90-9 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,8-octanediyl)bis- (CA INDEX NAME)

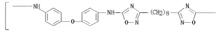


L11 ANSWER 142 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1968:419807 CAPLUS
DN 69:19807
OREF 69:3751a,3754a
TI Heat-resistant poly(1,2,4-oxadiazoles)
IN Baba, Yasuo; Yoda, Naoya, Nakanishi, Ryoji
PA Toyo Rayon Co., Ltd.
SO Jpn. Tokkyo Koho, 6 pp
CODEN: JAXXAD
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO	DATE
PI	JP 42025317	B4	19671204	JP	19650210 <--

AB Polycondensation of aliphatic or aromatic bis(amide oximes) of the formula R[C(NH2):NOH]2 (I) with an organic diisocyanate R'(NCO)2 gives moldable linear polymers with [RC(NH2):NO2CNHR'NHCO2N C(NH2)] units. Cyclization of the carbamate polymer by thermal or chemical dehydration yielded the title polymers. Thus, 17.4 parts I [R = (CH2)4] in 400 parts AcNMe2 was treated at -20° with 16 parts p-(OCN)2C6H4 (II) in 100 parts AcNMe2 The mixture was stirred at -10° for 15 min., then at room temperature for 2 hrs , and poured into 300 cc. C6H6 to give 92% film-forming carbamate polymer, m. > 155° , ηinh (inherent viscosity) 1.82 (0 5% in concentrated H2SO4), soluble in Me2SO. Dehydration by soaking in Ac2O containing 20% C5H5N and subsequent vacuum drying or by heating at 220° and 1 mm gave a polymer of ηinh 0.75 (at 25°). Similarly, the following heat-resistant polymers were prepared (R of I, diisocyanate, reaction medium, ηinh, and m p. given): p-C6H4, II, AcNMe2 (C5H5N added in most cases), 1.72, > 350° ;(oxalamide oxime), (p-OCNC6H4)2CH2 (III), HCONMe2 (20° for 20 hrs), 1.94, 260-70° (64% yield), p-C6H4, OCN(CH2)6NCO (IV), AcNMe2 + CH2Cl2, 1.90, > 300° , p-CH2C6H4CH2 (V), II, N-methylpyrrolidone, 1.75, > 300° ;(CH2)4, m-(OCN)2C6H4, AcNMe2, 1 98, - (intermediate carbamate, m. > 300° , ηinh 0 65 in Me2SO), (CH2)4, II, polyphosphoric acid (VI) (150° for 12 hrs.), 1 86, -; p-C6H4, 2,4-(OCN)2C6H3Me, AcNMe2 (100° for 20 hrs), 2 05, -, (CH2)2, III, VI, 1 76, -, (CH2)8, (p-OCNC6H4)2O, AcNMe2, 1 56, -, V, IV, Me2SO + Et3N (150° for 6 hrs.), 1.84, -
IT 32010-27-8P
RL PREP (Preparation)
(preparation of)
RN 32010-27-8 CAPLUS
CN Poly(1,2,4-oxadiazole-5,3-diyl-1,8-octanediyl-1,2,4-oxadiazole-3,5-diylimino-1,4-phenyleneoxy-1,4-phenyleneimino) (9CI) (CA INDEX NAME)

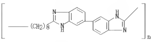
PAGE 1-A



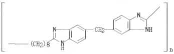
PAGE 1-B

L11 ANSWER 143 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1968 410860 CAPLUS
DN 69 10860
OREF 69 2091a,2094a
TI Polybenzimidazoles derived from 3,4,3',4'-tetraaminodiphenylmethane
AU Matei, Ilie; Mandric, Gh ; Taranu, Valentina; Schneider, I A
CS Inst Macromol Chem "P Poni,", Iasi, Rom
SO Revue Roumaine de Chimie (1967), 12(6), 715-19
CODEN RRCHAX; ISSN 0035-3930
DT Journal
LA English
GI For diagram(s), see printed CA Issue
AB The effect of the methylene group inserted between benzimidazole units on the stability of aliphatic and aromatic polybenzimidazoles was investigated N,N'-Methylenebis(2-nitroaniline) was prepared from o-nitroaniline and HCHO and converted to 3,3'-dinitro-4,4'-diaminodiphenylmethane, which by reduction was converted into 3,3',4,4'-tetraaminodiphenylmethane (I), and finally into the tetrahydrochloride of I by treatment with HCl Also synthesized were diacetylbenzidine, converted into 3,3'-dinitrobenzidine by nitration and deacetylation, then by reduction with SnCl2 into 3,3'-diaminobenzidine (II), and by treatment with HCl, into the tetrahydrochloride of II The model compound 2,2'-dimethyl-5,5'-methylenedibenzimidazole (III) was prepared from I and AcOH Polybenzimidazoles (IV and V, resp.), were prepared by solution polycondensation of I 4HCl or II 4HCl, resp , with aliphatic and aromatic dicarboxylic acids using polyphosphoric acid as both solvent and condensing agent The following polymers were obtained: IV, R = (CH2)6; IV, R = (CH2)7; IV, R = (CH2)8; IV, R = p-C6H4; IV, R = o-C6H4; IV, R = m-C6H4; IV, R = cis-CH:CH; V, R = (CH2)8; and V, R = m-C6H4 The same polymers have been obtained before by the melt condensation of I with Ph esters of aliphatic and aromatic dicarboxylic acids All IV (except IV, R = (CH2)6) and V) were soluble in AcNMe2 and all IV (except IV, R = (CH2)6) were soluble in HCONMe2 All were soluble in 95% H2SO4 [IV (R = m-C6H4) was partially soluble] and in Me2SO and 90% HCO2H. In glacial AcOH all were insol , while IV, R = (CH2)8 was partially soluble; and in m-cresol all except V [R = (CH2)8], IV [R = (CH2)7], and IV [R = (CH2)8] (which were partially soluble) were insol The polymers could be purified by repptg. from solns in AcNMe2 or HCONMe2 by means of pouring into aqueous MeOH, followed by drying at 240 or 300° in a high vacuum. Thermogravimetric anal (in air at 12 4° /min.increase), showed that poly(phenylenebenzimidazoles) from I or II were more stable than the poly(alkylenebenzimidazoles) Poly(alkylenebenzimidazoles) derived from I and II showed good thermal stability at <350-60° ,starting to decompose considerably at 400° Poly(phenylenebenzimidazoles) derived from I and II had thermal stability ≤430-40° and began to decompose rapidly at 500° The thermal stabilities of IV and V were very similar, but were smaller than those of polybenzimidazoles prepared by melt polycondensation. The low reduced viscosity for IV [R = (CH2)6] was attributed to partial conversion of the adipic acid into cyclopentanone in polyphosphoric acid No polymers were obtained with succinic acid Both IV and III showed strong characteristic ir bands at 1630 and 800 cm -1 19 references
IT 25035-65-8P 31850-71-2P
RL SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)

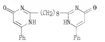
L11 ANSWER 143 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 31850-71-2 CAPLUS
CN Poly(1H-benzimidazole-2,5-diylmethylene-1H-benzimidazole-5,2-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)

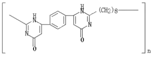


L11 ANSWER 144 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1968 410821 CAPLUS
DN 69 10821
OREF 69 2086h,2087a
TI Heterocyclic polymers I Poly(4-hydroxypyrimidine-2,6-diyl-p-phenylenes)
AU Strul, M ; Zugravescu, I
CS Inst Macromol Chem "P Pony", Iasi, Rom
SO Revue Roumaine de Chimie (1967), 12(7), 867-74
CODEN RRCHAX; ISSN 0035-3930
DT Journal
LA English
GI For diagram(s), see printed CA Issue
AB A series of model 4-hydroxypyrimidines was prepared Thus, 3 cc. MeONa in MeOH (containing 2 5 g at Na) was added to 1 2 millimoles finely powdered H2NC(:NH)RC(:NH)NH2 2HCl. The mixt was stirred for 20 min. The free amidine was condensed with 0 455 g Et benzoylacetate in the presence of 0 25 cc piperidine by heating for 3 hrs at 65-70° on a water bath to give 40-60% of the following I (R, m p , and recrystn. solvent given): I (CH2)8, 245-6° ,AcOH; (CH2)4, 320-2° ,AcOH; p-CH2C6H4CH2, 363-5° ,AcOH + CHCl2CO2H; p-C6H4, 413-5° ,AcOH + CHCl2CO2H. Similarly, 2 5 millimoles benzamidine-HCl and 1.25 millimoles di-Et terephthaloylbisacetate (II) gave III, m. >450° . By adding 6 cc. MeONa in MeOH (containing 2 5 g at Na) to 2 5 millimoles finely powdered diamidine-2HCl, shaking for 20 min., and adding 10 cc. absolute MeOH, 0.25 cc. piperidine, and 2 5 millimoles II, shaking vigorously, and heating at 65-70° for 4 hrs gave the polymer IV. IV can be purified by dissoln in NaOH and repptg. with HCl or other acids. The polymers obtained were [R, inherent viscosity (0.5 g /100 cc CHCl2CO2H at 20°),break temperature, weight loss to break temperature, and weight loss to 618°] (CH2)8, 0 16, 317° ,0 54%, 43; (CH2)4, 0.15, 320° ,1 83%, 45%; p-CH2C6H4CH2, + 0.15, 282° ,1.04%, 43%; p-C6H4, 0 21, 305° ,1.90%, 45% To the product precipitated as intermediate in the case of terephthalimidine, the structure V was assigned on the basis of the solubility in warm H2O from which it can be recrystd , of the N anal., of the regeneration of II by addition of AcOH to a warm aqueous solution of V salt, and of the obtaining of the same salt when an aqueous solution of di-Na salt of the bis-β-oxoester was added to a warm aqueous solution of the I 2HCl (R = p-C6H4) Similar salts were obtained from Na nitromalonaldehyde and monoamidine hydrochlorides (P. E Fanta and Hedman, 1956) Heating of V in MeOH in the presence of piperidine gave a polymer which showed the same chemical, phys , and spectral characteristics as IV (R = p-C6H4) IV have no softening temps., and the T.G.A curves showed only break points, followed by gradual decomposition The ir spectra contained characteristic bands at apprx 850 and 970-1000 cm -1 which were absent in V, and reappeared in the V (R = p-C6H4) formed from it, demonstrating that these bands are attributable to the pyrimidine ring 15 references
IT 20599-99-9P 31850-56-3P
RL SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 20599-99-9 CAPLUS
CN 4-Pyrimidinol, 2,2'-octamethylenebis[6-phenyl- (8CI) (CA INDEX NAME)



RN 31850-56-3 CAPLUS
CN Poly[(6-hydroxy-2,4-pyrimidinediyl)-1,4-phenylene(6-hydroxy-4,2-pyrimidinediyl)-1,8-octanediyl] (9CI) (CA INDEX NAME)

L11 ANSWER 144 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



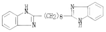
L11 ANSWER 145 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1968:88146 CAPLUS
DN 68:88146
OREF 68:17031a,17034a
TI Poly(2,2'-octamethylenebisbenzimidazole) fiber
IN Adrova, N. A.; Frenkel, S. Ya.; Koton, M. M.; Korzhavin, L. N.; Pyrkov, L. M.; Laius, L. A.; Pushkina, T. P.; Moskvina, E. M.; Ginzburg, B. M.
PA Institute of High-Molecular-Weight Compounds, Academy of Sciences, U.S.S.R.
SO U.S.S.R.
From: Izobret., Prom. Obraztsy, Tovarnye Znaki 1967, 44(19), 110.
CODEN: URXXAF
DT Patent
LA Russian
FAN.CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	SU 202430		19670914	SU	19640401 <--

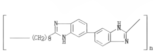
AB The fiber is formed by spinning a solution of the polymer into an aqueous precipitation bath. Thus, to prepare heat-resistant fibers, poly(2,2'-octamethylenebisbenzimidazole) in HCO2H solution is spun into a precipitating bath containing HCO2H and H2O.
IT 30398-56-2P
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)
RN 30398-56-2 CAPLUS
CN Benzimidazole, 2,2'-octamethylenebis-, polymers (8CI) (CA INDEX NAME)

CM 1

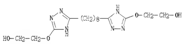
CRN 5233-14-7
CMF C22 H26 N4



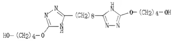
L11 ANSWER 146 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1968:87928 CAPLUS
DN 68:87928
OREF 68:16991a,16994a
TI Properties of poly[2,2'-octamethylene-5,5'-bibenzimidazole]
AU Korshak, V. V.; Frunze, T. M.; Izyneev, A. A.
SO Trudy Buryatskogo Kompleksnogo Nauchno-Issledovatel'skogo Instituta, Akademiya Nauk SSSR, Sibirskoe Otdelenie (1966), No. 20, 73-6
From: Ref. Zh., Khim. 1967, Abstr. No. 12S412
CODEN: TBSOAA; ISSN: 0503-1354
DT Journal
LA Russian
AB The properties of poly[2,2'-octamethylene-5,5'-bibenzimidazole] (I) obtained by polycyclization of 3,3'-diaminobenzidine with di-Ph sebacate were studied at elevated temps. I began to decompose in a N current at 460°, the weight loss of the polymer at 500° was 10.59%. I had good adhesion to glass and metals and could be used as heat-resistant glues for gluing various metallic materials, e.g., stainless steel and Duralumin. The shear strength of glued joints of stainless steel with I-based glue was 285 kg./cm.2 at 20°, after exposure to a temperature of 350° for 50 hrs., the shear strength was 57 kg./cm.2 at 20° and 37 kg./cm.2 at 300°.
IT 25035-65-8
RL: USES (Uses)
(adhesive and thermal properties of)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



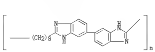
L11 ANSWER 147 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1968:78201 CAPLUS
DN 68:78201
OREF 68:15091a,15094a
TI 2-Amino-1,3,4-oxadiazoles. XIX. Alcoholysis of 2-amino-1,3,4-oxadiazoles by dihydric alcohols
AU Gehlen, Heinz; Stein, J.
CS Paedagog. Hochsch., Potsdam, Fed. Rep. Ger.
SO Journal fuer Praktische Chemie (Leipzig) (1968), 37(3-4), 168-81
CODEN: JPCEAO; ISSN: 0021-8383
DT Journal
LA German
GI For diagram(s), see printed CA Issue.
AB 2-Amino-5-(R-substituted)-1,3,4-oxadiazoles (I) (R = Ph, PhCH2, PhCH2CH2, Me, Et, Pr, Bu, p-HOC6H4, p-H2NC6H4, etc.) reacted with HOCH2CH2OH in KOH to give 3-(2-hydroxyethoxy)-5-(R-substituted)-2H-1,2,4-triazoles, which were converted into 3-(2-haloethoxy)-5-(R-substituted)-2H-1,2,4-triazoles. The latter compds. were rearranged upon heating into 4-(2-haloethyl)-5-(R-substituted)-2H-1,2,4-triazol-3-ones.
IT 17506-19-3P 17506-22-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 17506-19-3 CAPLUS
CN Ethanol, 2,2'-[octamethylenebis(s-triazole-5,3-diyloxy)]di- (8CI) (CA INDEX NAME)



RN 17506-22-8 CAPLUS
CN 1-Butanol, 4,4'-[octamethylenebis(s-triazole-5,3-diyloxy)]di- (8CI) (CA INDEX NAME)



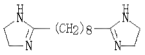
L11 ANSWER 148 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1968:30297 CAPLUS
DN 68:30297
OREF 68:5919a,5922a
TI Structural changes in poly(2,2'-octamethylene-5,5'-bibenzimidazole) during thermal treatment
AU Ginzburg, B. M.; Mikhailova, N. V.; Nikitin, V. N.; Sidorovich, A. V.; Tuichiev, Sh.; Frenkel, S. Ya.
SO Vysokomolekulyarnye Soedineniya, Seriya A (1967), 9(11), 2385-92
CODEN: VYSAAF; ISSN: 0507-5475
DT Journal
LA Russian
AB It was observed earlier that films prepared from HCO2H solns. of the title polymer (I), during annealing, underwent a phase change (crystalline to amorphous), below their softening temperature. Phase transitions of I were studied by means of x-ray diffraction, D.T.A., thermogravimetric anal., and ir spectroscopy. The results are discussed from the point of view of the Hosemann paracryst. theory. An irreversible transition occurs at 120-40°; it was due to decomposition of I crystallites containing HCO2H of crystallization with liberation of HCO2H. Boiling I films in water also caused a partial removal of HCO2H from the crystallites. Films obtained from I HOAc solns. had different unit cell parameters, corroborating the existence of I.HCO2H crystallites.
IT 25035-65-8
RL: PRP (Properties)
(phase transitions of)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



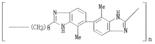
L11 ANSWER 149 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1968 22475 CAPLUS
DN 68 22475
OREF 68 4370h,4371a
TI Polyimidazolines as crosslinking additives for poly(vinyl chloride)
IN Isaacs, Philip K ; Dearborn, Elizabeth C
PA W R Grace and Co
SO Ger , 7 pp
CODEN GWXXAW
DT Patent
LA German
FAN CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	DE 1253454		19671102	DE 1962-G34393	19620303 <--
PRAI	US		19610322		

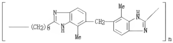
GI For diagram(s), see printed CA Issue
AB Non-melting, non-extractable poly(vinyl chloride) (I) molding composition with increased stability and low odor are prepared by crosslinking with the reaction product of dry bentonite and a polyimidazoline which consists of a 2-substituted or a 1,2-disubstituted 2-imidazoline and adding ZnO Thus, a mixture consisting of 2 moles oleic acid, 1 mole sebacic acid, and 2 moles triethylenetetramine was heated 4 hrs at 150-220° /760-15mm under N to give the polyimidazoline II Wyoming bentonite was dried 0 5 hr at 200° in a circulating air oven whereby 6% moisture was lost. To 250 g CH2C12 was added 10 g II and 40 g. dried bentonite, the components dispersed, CH2C12 evaporated at 100° ,and the II-bentonite complex (III) dried Two molding compns. were compared, one containing III, the other only II The composition containing III had an initial viscosity of 25,000 cp , a viscosity after 1 week standing of 25,000 cp., and after heating 2 min at 200° had a light brown color, very little odor, and an extractability in 5% AcOH of 2.1%. The compound containing II had an initial viscosity of 5000 cp., a viscosity after 1 week of 40,000 cp., and after hardening was dark brown, had a strong odor and an extractability of 10% The addition of ZnO results in low viscosity, fast crosslinking as well as good stability Other components used in similarly prepared compns. were the triglyceride of epoxidized soya bean oil, dioctyl adipate, and tributyl acetylcitrate
IT 7516-99-6
RL RCT (Reactant), RACT (Reactant or reagent)
(crosslinking by, of chloroethylene polymers)
RN 7516-99-6 CAPLUS
CN 1H-Imidazole, 2,2'-(1,8-octanediyl)bis[4,5-dihydro- (CA INDEX NAME)



L11 ANSWER 150 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1968 13455 CAPLUS
DN 68 13455
OREF 68 2607a,2610a
TI Polybenzimidazoles based on methylated benzene tetraamines
AU Korshak, V V ; Teplyakov, M M ; Fedorova, R D
CS Mosk Khim -Tekhnol Inst im Mendeleeva, Moscow, USSR
SO Vysokomolekulyarnye Soedineniya, Seriya B Kratkie Soobshcheniya (1967), 9(10), 767-9
CODEN VYSBAI, ISSN 0507-5483
DT Journal
LA Russian
AB 3,3'-Diaminotolidine (I) and 2,3',4,4'-tetraaminoditolylmethane (II) were synthesized and were used to prepare polybenzimidazoles with di-Ph isophthalate (III), di-Ph terephthalate (IV), di-Ph adipate (V), and di-Ph sebacate (VI) The polybenzimidazoles obtained had the following properties (amine, ester, intrinsic viscosity in HCO2H, and decomposition temperature given) I, V, 0 76, -, I, VI, 0 80, -, I, III, 0 40, 490° ;I, IV, 0 42, 500° ;II, III-IV, 0 51, 490° ;II, III, 0 64, -, II, III, 0 47, 400° ;II, IV, 0 41, 450° .
IT 32031-97-3P 32032-00-1P
RL SPN (Synthetic preparation), PREP (Preparation)
(preparation of)
RN 32031-97-3 CAPLUS
CN Poly[(4,4'-dimethyl[5,5'-bi-1H-benzimidazole]-2,2'-diyl)-1,8-octanediyl] (9CI) (CA INDEX NAME)



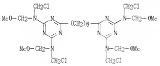
RN 32032-00-1 CAPLUS
CN Poly[(4-methyl-1H-benzimidazole-2,5-diyl)methylene(4-methyl-1H-benzimidazole-5,2-diyl)-1,8-octanediyl] (9CI) (CA INDEX NAME)



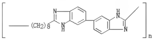
L11 ANSWER 151 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1967 516896 CAPLUS
DN 67 116896
OREF 67 22027a
TI N-Halomethyl-s-triazines
IN Beachem, Michael T ; Oppelt, John C
PA American Cyanamid Co
SO U S , 4 pp
CODEN USXXAM
DT Patent
LA English
FAN CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	US 3317529		19670502	US 1964-380947	19640707 <--

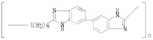
GI For diagram(s), see printed CA Issue
AB The title compds are prepared by treating a guanamine or melamine derivative with an acid chloride to give the corresponding halomethyl compound Thus to a solution of 60 parts N,N,N',N',N",N"-hexakis(methoxymethyl)-2,4,6-triamino-s-triazine (I, R = MeO) (Ia) in about 90 parts CHC13 is added a solution of 18 3 parts SOC12 in about 45 parts CHC13 with cooling The mixture is heated to 40-50° ,SO2 and MeCl are distilled, and the residue is distilled in vacuo to leave about 60 parts II (R = R1 = R2 = MeO). The tabulated II were also prepared from I III is also prepared starting from N,N,N'N"-tetramethyl-N,N'-bis(octyloxymethyl)-2,4,6-triamino-s-triazine. The N,N,N',N',N",N" - hexakis(ethoxymethyl) analog of Ia is treated with AcBr in PhMe at 80° to give N-bromomethyl-N,N',N',N",N"-pentakis(ethoxymethyl)-2,4,6-triamino-s-triazine. The tabulated guanamines (IV) are similarly prepared from the appropriate starting derivs Similarly prepared also from 2,2'-octamethylenebis[N,N,N',N'-tetrakis(methoxymethyl)-4,6-diamino-s-triazine] and a large excess of SOC12 in C6H6 was the N,N'-bis(chloromethyl) analog. The title compds may be used to impart shrinkage control and crease resistance to fabrics, and also have antifungal activity.
IT 16298-18-3P
RL SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 16298-18-3 CAPLUS
CN s-Triazine, 2,2'-octamethylenebis[4,6-bis[(chloromethyl)(methoxymethyl)amino]- (8CI) (CA INDEX NAME)



L11 ANSWER 152 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1967:500529 CAPLUS
DN 67:100529
OREF 67:18951a,18954a
TI Effect of molecular weight on the mechanical properties of oriented amorphous polymers
AU Laius, L. A.; Kuvshinskii, E. V
CS Inst. Vysokomol. Soedin, Leningrad, USSR
SO Mekhanika Polimerov (1967), (4), 579-85
CODEN: MKPLA6; ISSN: 0025-8865
DT Journal
LA Russian
AB The tensile strength (σ) of uniaxially oriented films was studied There was no direct relation between σ and the mol. weight of the linear amorphous polymers [poly(Me methacrylate), polystyrene, or poly(2,2'-octamethylene-5,5'-bibenzimidazole)] from which the films were prepared Film structure and predominantly crosslinking determined σ However, the mol. weight influenced structure formation in these films and thus, in a complex and indirect way, it influenced σ.
IT 25035-65-8
RL PRP (Properties)
(tensile strength of films of, mol. weight in relation to)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



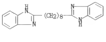
AN 1967:491190 CAPLUS
DN 67:91190
OREF 67:17211a,17214a
TI Strength of oriented amorphous linear polymers in relation to their structure
AU Laius, L. A.; Kuvshinskii, E. V.
CS Inst. Vysokomol. Soedin., Leningrad, USSR
SO Mekhanika Polimerov (1967), (3), 455-60
CODEN: MKPLA6; ISSN: 0025-8865
DT Journal
LA Russian
AB Tensile strengths of amorphous, linear, atactic poly(Me methacrylate), polystyrene, and poly(2,2'-octamethylene-5,5'-dibenzimidazole) were studied in relation to their structures. Their deformation-strength properties in solid (glassy) state depend on the conformation and interweaving of the macromols., degree of macromol. orientation, and on concentration of the strained bonds per unit volume. The inherent stresses in a sample could be determined by the degree of chain orientation in samples under cold draw stress. The mol. wts. of polymers did not affect their mech. properties under test conditions.
IT 25035-65-8
RL: PRP (Properties)
(strength of amorphous oriented, structure and)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



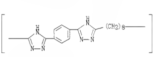
AN 1967:444394 CAPLUS
DN 67:44394
OREF 67:8375a,8378a
TI Curing polyepoxides with bis-heterocyclic aromatic compounds
IN Joo, Louis A.; Braunwarth, John B.; Rai, Charanjit
PA Union Oil Co.
SO U.S., 5 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 3324050		19670606	US 1963-258125	19630213 <--

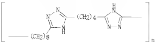
GI For diagram(s), see printed CA Issue.
AB Polyepoxide resins are cured by bis-heterocyclic aromatic compds., e.g., bis-2-benzimidazolyl-alkanes, bis-2-benzimidazolyl polyhydroxyalkanes, and their benzothiazole analogs, prepared from dibasic acids or hydroxy-substituted dibasic acids and $o-C_6H_4(NH_2)_2$ or o-aminothiophenols in a polyphosphoric acid (I) medium. Thus, 206 g. di-Et tartrate, 216 g. $o-C_6H_4(NH_2)_2$, and 125 g. I were heated 2 hrs. at 125-50°, cooled, and poured into ice water. The product was filtered, washed with 5% $NaHCO_3$ and H_2O to yield approx. 100% 1,2-bis(2-benzimidazolyl)-1,2-dihydroxyethane (II) (EtOH). A mixture of 10 g. polyepoxide resin (185 epoxide equivalent) and 1 g. II had a pot life >80 hrs., and when cured at 130-5°, had a Barcol hardness of 70-5 after 6 hrs. and 84-8 after 14 hrs. Similar cures were obtained with 1,5-bis(2-benzimidazolyl)pentane and 1,2-bis(2-benzothiazolyl)ethane. The preparation of 1,8-bis(2-benzimidazolyl)octane, m. 278°, was also described.
IT 5233-14-7P
RL: PREP (Preparation)
(preparation and curing epoxy resins by)
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)



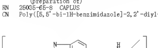
AN 1967:411793 CAPLUS
DN 67:11793
OREF 67:2275a,2278a
TI Poly(acrylamidrazones) and poly(1,2,4-triazoles) by the reaction between diimidates and dihydrazides
AU Caraculacu, Georgeta; Zugravescu, Ion
CS Inst. Macromol. Chem. "P. Poni", Jassy, Rom.
SO Revue Roumaine de Chimie (1967), 12(3), 291-6
CODEN: RRCHAX; ISSN: 0035-3930
DT Journal
LA English
GI For diagram(s), see printed CA Issue.
AB Succinic acid dihydrazide (I) and sebacic acid dihydrazide (II) were polymerized with diethyliminoadipate (III) and diethyliminoterephthalate (IV) by refluxing 2 hrs. at 160-70° in N-methylpyrrolidinone (16% of mixture) to give poly(acylamidrazones) (V), which were viscous gels. The gels were poured into EtOH-water to give solid, white V. V were heated at 150-300° to prepare poly(1,2,4-triazoles) (VI) which decomposed at 450-500°. Clear films were prepared by drying a Me2SO solution of V at 200°. V prepared from equimolar amts. of I and IV, II and IV, and II and III had m.ps. 300, 250, and 140-5°, resp., and inherent viscosities (1% Me2SO) 0.23, 0.13, and 0.15, resp. VI prepared from II and IV, and III and IV, had weight losses of 1% and 8%, resp., at 400° and inherent viscosities (0.5% m-cresol) 1.05 and 0.6, resp. The ir spectra of V and VI had peaks at 3000-500 cm.-1 and 1660 cm.-1, and those of VI had addnl. peaks at 2500 and 2570 cm.-1.
IT 31987-66-3P 31987-67-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 31987-66-3 CAPLUS
CN Poly(1,2,4-triazole-3,5-diyl-1,4-phenylene-1,2,4-triazole-3,5-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)



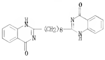
RN 31987-67-4 CAPLUS
CN Poly(1,2,4-triazole-3,5-diyl-1,4-butanediyl-1,2,4-triazole-3,5-diyl-1,8-octanediyl) (9CI) (CA INDEX NAME)



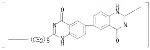
AN 1967:105225 CAPLUS
DN 66:105225
OREF 66:19711a,19714a
TI Aliphatic heterocyclic polymers
AU Trischler, Floyd D.; Kjoller, Kendall J.; Levine, Harold H.
CS Narmco Res. and Develop. Div., Whittaker Corp., San Diego, CA, USA
SO Papers presented at [the] Meeting - American Chemical Society, Division of Organic Coatings and Plastics Chemistry (1967), 27(1), 381-6
CODEN: ACOCAO; ISSN: 0096-512X
DT Journal
LA English
AB Aliphatic polybenzoxazoles, polybenzothiazoles, and polybenzimidazoles prepared by 3 methods: in polyphosphoric acid, by the polyamide precursor, and by melt polyn. The melt polymerization method was the most satisfactory. All of the aliphatic heterocyclic polymers had excellent thermal stability, resistance to alkaline hydrolysis, high glass transition temps., and a high degree of flexibility. The only class of polymer having any degree of solubility, however, was the polybenzimidazoles. Aliphatic polybenzimidazole films were prepared by solution casting. These films were extremely flexible at ambient and cryogenic temps. The films were unaffected by alkaline hydrolysis, even in an oxidizing medium. A molding prepared from the aliphatic polybenzimidazole had excellent phys. properties at both cryogenic and room temps.
IT 25035-65-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 25035-65-8 CAPLUS
CN Poly([5,5'-bi-1H-benzimidazole]-2,2'-diyl-1,8-octanediyl) (CA INDEX NAME)



AN 1967 46644 CAPLUS
DN 66 46644
OREF 66 8867a,8870a
TI Synthesis of polyquinazolones cyclopolycondensation reactions of imido esters with aromatic amino acids
AU Saga, Motoo; Shono, Toshiyuki; Shinra, Koichiro
CS Univ Osaka, Osaka, Japan
SO Kogyo Kagaku Zasshi (1966), 69(8), 1529-34
CODEN KGKZA7, ISSN 0368-5462
DT Journal
LA Japanese
AB Ir, uv, and N.M.R spectra are obtained for the reaction products of anthranilic acid and aliphatic or aromatic imido esters There is a large amount of compound containing the quinazolone ring in the reaction product when a bifunctional imido ester reacts with a bifunctional aromatic amino acid in polyphosphoric acid Polyphosphoric acid (50 g) was stirred vigorously under N, and 0 005 ml of an aromatic diamino dicarboxylic acid was added Upon heating, a clear solution was obtained at .apprx 70° , 0 005 mole dimidate was added, and the temperature was raised to 120° for 1 hr Polyquinazolone formed and showed good heat resistance.
IT 15445-45-1P 28729-35-3P 32217-90-6P
RL SPN (Synthetic preparation), PREP (Preparation)
(preparation of)
RN 15445-45-1 CAPLUS
CN 4(1H)-Quinazolinone, 2,2'-octamethylenedi- (8CI) (CA INDEX NAME)

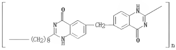


RN 28729-35-3 CAPLUS
CN Poly[(1,1',4,4'-tetrahydro-4,4'-dioxo[6,6'-biquinazoline]-2,2'-diyl)-1,8-octanediyl] (9CI) (CA INDEX NAME)

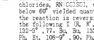


RN 32217-90-6 CAPLUS
CN Poly[(1,4-dihydro-4-oxo-2,6-quinazolinediyl)methylene(1,4-dihydro-4-oxo-6,2-quinazolinediyl)-1,8-octanediyl] (9CI) (CA INDEX NAME)

 (Continued)

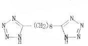


AN 1966 482237 CAPLUS
DN 65 82237
OREF 65 15368e-h
TI Chlorination of isothiocyanates IV Reactions of N-alkyl- and N-aryl-S-chloroisothiocarbamoyl chlorides with isocyanates. Synthesis of 1,2,4-thiadiazolidine-3,5-diones
AU Ottmann, G F , Hooks, H , Jr
CS Chem Div , Olin Mathieson Chem Corp , New Haven, CT
SO Angew Chem Intern Ed Engl (1966), 5(7), 672-3
DT Journal
LA English
OS CASREACT 65 82237
GI For diagram(s), see printed CA Issue.
AB cf CA 64, 12577f, 19588e N-Substituted S-chloroisothiocarbamoyl chlorides, RN CClSCl, with aliphatic and aromatic isocyanates, R'NCO, below 60° yielded quant. the corresponding RN: CClSN(COCl)R' (I); the reaction is reversible at elevated temperature In this manner were prepared the following I (R, R', m p , and % yield given): Et, C8H17, 132-3° , 77, Bu, Bu, 133-4° , 85, Bu, C8H17, 114° , 65; Ph, Et, 108-9° , 90, Ph, iso-Pr, 101-2° , 78; Ph, Bu, 97-9° , 86, Ph, C8H17, 92-3° , 68, Ph, Ph, 79-80° , 97; Ph, p-MeC6H4, 95-6° , 91, Ph, p-ClC6H4, 72-3° , 95; Ph, p-MeOC6H4, 85-92° , 98, cyclohexyl, iso-Pr, 131-2° , 55. The I, which fume heavily in air, when treated with H2O or aqueous alcs. yielded with the evolution of HCl the corresponding II which are tabulated. The II with LiAlH4 in tetrahydrofuran yielded the corresponding 1,3-disubstituted ureas in up to 65% yield R, R, b.p./mm. or m.p., % yield, n25D, Et, C8H17, 134° /0.6,76, 1. 4920, Bu, Bu, 111° /0 6,77, 1 4960, Bu, C8H17, 142° /0.25,71, 1 4890, Ph, Et, 94-5° , 91, --, Ph, iso-Pr, 112-13° , 95, --; Ph, Bu, 81-2° , 90, --, Ph, C8H17, 70-1° , 86, --; Ph, Ph, 114-15° , 84, --, Ph, p-MeC6H4, 136-7° , 76, --; Ph, p-MeOC6H4, 157-8° , 85, --, Ph, p-ClC6H4 (III), 170 5-71° , 91, -- PhN CClSCl (412 g) in 150 cc. dry pentane added with stirring to 307 g p-ClC6H4NCO in 1 1 dry pentane at 20-5° and kept 12-15 hrs , and the product added with stirring at 60-70° to 1500 cc. H2O yielded III
IT 7760-59-0P, Tetrazole, 5,5'-octamethylenebis-
RL PREP (Preparation)
(preparation of)
RN 7760-59-0 CAPLUS
CN 1H-Tetrazole, 5,5'-(1,8-octanediyl)bis- (9CI) (CA INDEX NAME)

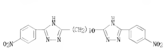


AN 1966:482236 CAPLUS
DN 65:82236
OREF 65:15367g-h,15368a-e
TI Metal hydrazides. XII. Synthesis of diamidrazones from aliphatic dinitriles and sodium hydrazide
AU Kauffmann, Thomas; Ban, Laszlo
CS Univ. Muenster, Germany
SO Chemische Berichte (1966), 99(8), 2600-6
CODEN: CHBEAM; ISSN: 0009-2940
DT Journal
LA German
OS CASREACT 65:82236
GI For diagram(s), see printed CA Issue
AB cf. CA 65, 5385b. Aliphatic diamidrazones of the type H2NN:C(NH2)(CH2)nC(NH2):NNH2 (I) were readily prepared in yields above 80%, with the exception of I (n = 1 or 2), from the corresponding dinitriles with NaNHNH2 in N2H4-Et2O at 35° . The acylation of the I and subsequent heating to 200° or treatment with HNO2 yielded the corresponding II or III, resp. All reactions with NaNHNH2 are potential explosion hazards and were performed behind shields under pure N NaNH2 (0 06 mole) in 50 cc. Et2O treated dropwise with stirring at room temperature with 0 24 mole N2H4 and then with 0.02 mole appropriate dinitrile in 100-200 cc Et2O and refluxed 4 hrs. gave the corresponding I The I in absolute EtOH treated dropwise with cooling with excess HCl-Et2O yielded the 1 4HCl. The appropriate I (0.001 mole) in 10 cc. H2O titrated with 0 1N HCl against methyl orange and evaporated at 30-40° /15mm yielded the I.2HCl. I in EtOH (saturated solution) treated dropwise with stirring with excess alc. (CO2H)2 and diluted with Et2O gave the dioxalate NC(CH2)10CN (3.84 g.) treated with NaNHNH2, and the mixture hydrolyzed with cooling by the successive addition of 20 cc. moist Et2O and 15 cc H2O <10° and stirred 15 min yielded 4 82 g. I (n = 10) (IV), m 138° (decomposition) (EtOH), IV.3 7HCl m 136° (decomposition); IV.2HCl m 137° (decomposition) (EtOH). NC(CH2)8CN (V) (6.56 g) gave similarly (reaction mixture decomposed with 100 cc EtOH) 8 8 g. I (n = 8) (VI), m 130° (decomposition) (absolute EtOH) A similar run decomposed with Et2O and H2O yielded 94% VI, m 136° (recrystd from EtOH, m. 130°);VI 3.7HCl m 135° (decomposition), VI.2 (CO2H)2 m 183-4° (decomposition) (MeOH) NC(CH2)6CN (2 72 g) treated with NaNHNH2 and decomposed with Et2O and H2O yielded 3 3 g crude I (n = 6) (VII), m 124° (decomposition) (EtOH); VII 3 5HCl m 143° (decomposition); VII 2HCl m 175° (decomposition) (absolute EtOH) NC(CH2)5CN (4 88 g.) gave similarly (decomposed with EtOH) 6 68 g I (n = 5) (VIII), m 121° (decomposition) (EtOH), VIII 2HCl m 208° (absolute EtOH), VIII 2(CO2H)2 m. 158° (decomposition) (EtOH) NC(CH2)4CN (4 32 g) yielded similarly 6.3 g I (n = 4) (IX), m 110° (decomposition), IX 2HCl, m 201° (decomposition) (absolute EtOH) CH2(CH2CN)2 (3 76 g) gave similarly with NaNHNH2 5 33 g I (n = 3), (X) m 96° ,X -2HCl hydroscopic, m 144° (decomposition) (absolute EtOH), X 2-(CO2H)2 m 129° (decomposition) (MeOH) The appropriate I (0 01 mole) in about 50 cc EtOH treated at 0° with 4 g powdered K2CO3 and then dropwise with stirring and cooling during 20 min with 0 02 mole BzCl or p-O2NC6H4COCl and stirred about 20 min yielded the corresponding acyl derivative, in this manner were prepared the N1,N1'-bis(p-nitrobenzoyl) derivs (% crude yield and m p given) of the following compds IV, 95, 186° (HCONMe2), VI, 95° ,166° (repptd from HCONMe2 with H2O), VIII, 81, 179° (EtOH-HCONMe2) Similarly were prepared the dibenzoyl derivative of IX, m 185° (EtOH), 55%, and of X, m 162° (4 1 EtOH-HCONMe2), 90% The appropriate diacyl derivative heated 15-30 min at about 200° until the H2O elimination was complete, stirred with 2N NaOH, and acidified with 2N HCl yielded the corresponding II (R, n, % crude and pure yield, and m p given) p-O2NC6H4, 10, 56, 47,204-5° (iso-PrOH), p-O2NC6H4, 8, 64, 40, 218° (EtOH), Ph, 4, 68, 53, 268-9° (EtOH) The appropriate I (0 04 mole) treated with 0 008 mole NaNO2 in about 15 cc H2O and then dropwise with stirring with 2N HCl yielded the corresponding III (n, % yield, and m p given) 8,

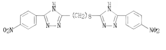
L11 ANSWER 159 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
80, 135° (EtOH), 6, 63, 182° (EtOH), 4, 65, 202° (EtOH)
IT 7760-59-0P, Tetrazole, 5,5'-octamethylenebis- 7772-59-0P, s-Triazole, 3,3'-decamethylenebis[5-(p-nitrophenyl)- 7772-60-3P, s-Triazole, 3,3'-octamethylenebis[5-(p-nitrophenyl)-
RL PREP (Preparation)
(preparation of)
RN 7760-59-0 CAPLUS
CN 1H-Tetrazole, 5,5'-(1,8-octanediyl)bis- (9CI) (CA INDEX NAME)



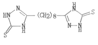
RN 7772-59-0 CAPLUS
CN 1H-1,2,4-Triazole, 3,3'-(1,10-decanediyl)bis[5-(4-nitrophenyl)- (CA INDEX NAME)



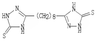
RN 7772-60-3 CAPLUS
CN s-Triazole, 3,3'-octamethylenebis[5-(p-nitrophenyl)- (7CI, 8CI) (CA INDEX NAME)



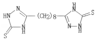
L11 ANSWER 160 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1966:438507 CAPLUS
DN 65:38507
OREF 65:7169b-c
TI 5-Ethoxy-3-(trichloromethyl)-1,2,4-oxadiazole I
AU Narayanan, V. L.; Bernstein, Jack
CS Squibb Inst. for Med. Res., New Brunswick, NY
SO Journal of Heterocyclic Chemistry (1966), 3(2), 214-17
CODEN: JHTCAD; ISSN: 0022-152X
DT Journal
LA English
GI For diagram(s), see printed CA Issue.
AB 5-Ethoxy-3-(trichloromethyl)-1,2,4-oxadiazole (I) was synthesized to elucidate the chemical involved in the preparation of the hitherto unreported alkoxy-1,2,4-oxadiazoles and to determine the effect of the isosteric replacement of S by O on antifungal activity. Heating the amino-oxime tautomer, NH2(Cl3C)C:NOH, of trichloroacetamidoxime with ClCO2Et furnished exclusively the O-acylated product NH2(Cl3C)C:NOCO2Et (II). The trans configuration of II accounts for its resistance to cyclize under a variety of conditions, in contrast to the general behavior of acylated amidoximes. Pyrolysis of II at 160° yielded III which exists in the keto form. Refluxing III with EtI in the presence of Ag oxide gave an isomeric mixture which was separated by vapor phase chromatog. to give I and IV. I retained 60% of the overall activity of the corresponding S analog.
IT 7271-38-7
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 7271-38-7 CAPLUS
CN Δ2-1,2,4-Triazoline-5-thione, 3,3'-octamethylenebis- (8CI) (CA INDEX NAME)



L11 ANSWER 161 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1966:438506 CAPLUS
DN 65:38506
OREF 65:7169a-b
TI Some 4-aryl-4,5,6,7-tetrahydroimidazo [4,5-c] pyridines derived from histamine
AU Stocker, Fred B.; Fordice, Michael W.; Larson, Jerry K.; Thorstenson, Joseph H.
CS Macalester Coll., St. Paul, MN
SO Journal of Organic Chemistry (1966), 31(7), 2380-3
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA English
AB A number of 4-aryl-4,5,6,7-tetrahydroimidazo[4,5-c]pyridines (I) and their isomeric Schiff bases were prepared from histamine and aromatic aldehydes. The scope of the cyclization reaction was investigated and the structure for I was firmly established by means of N.M.R. analysis.
IT 7271-38-7
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 7271-38-7 CAPLUS
CN Δ2-1,2,4-Triazoline-5-thione, 3,3'-octamethylenebis- (8CI) (CA INDEX NAME)

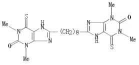


L11 ANSWER 162 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1966:438479 CAPLUS
DN 65:38479
OREF 65:7159c-g
TI Heterocyclic sulfur compounds. XIX. Infrared spectra of α-(1,2-dithiol-3-ylidene) ketones and of corresponding 1,6,6aS(IV)trithiapentalenes
AU Pinel, Raoul; Mollier, Yves; Lozac'h, Noel
CS Fac. Sci., Caen
SO Bulletin de la Societe Chimique de France (1966), (3), 1049-54
CODEN: BSCFAS; ISSN: 0037-8968
DT Journal
LA French
GI For diagram(s), see printed CA Issue.
AB cf. CA 64, 19533h. The ir spectra of several α(1,2-dithiol-3-ylidene) ketones (I) show carbonyl bands at about 1550 cm.-1 rather than at 1600-1700 cm.-1 This band position corresponds to about 70% double bond character, implying partial bonding between the carbonyl O and the neighboring S atom. Ethylenic bonds also absorb in this region, but peaks showing solvent shifts proportional to those with AcPh are identified as carbonyl absorptions. The following I were prepared and studied (R, R', and m.p. given): Me, Me (Ia), 102° ;Ph, Ph (Ib), 135° , p-MeOC6H4, Ph (Ic), 182° ;Ph, p-ClC6H4 (Id), 205° ;Ph, p-MeOC6H4 (Ie), 169° . To prepare Ib, 3 g. 3 phenyl-1,2-dithiolium perchlorate (Klingsberg, CA 55, 27272c) and 3 g. benzoylethyl acetate in 50 cc. AcOH was refluxed 15 min., 0.7 cc. pyridine added, and the mixture heated 6 hrs. The solvent was evaporated to dryness in vacuo, the residue dissolved in a mixture of ligroine and benzene, filtered, and chromatographed over alumina. First eluted was a little 5-phenyl-1,2-dithiole-3-thione, then the desired Et α-(5-phenyl-1,2-dithiol-3-ylidene)-α-benzoyl acetate. The yield was 30%, m. 147-8° (benzene-cyclohexane). This product (500 mg.) was added to a solution of 200 mg. Na in 25 cc. EtOH at 95° and refluxed 2 hrs. The alc. was distilled in vacuo; to the residue were added 200 cc. of warm water and 500 cc. of benzene. The aqueous solution was decanted and acidified with 10% H2SO4. The yellow precipitate was collected and dried, then heated for 20 min. in 25 cc. toluene. The toluene was distilled in vacuo and ligroine added to the residue. Chromatography and several recrystns. from EtOH-benzene yielded 50% yellow-orange Ib. Ic, Id, and Ie were prepared similarly. Treatment of I with P2S5 in pyridine gave the following II (R, R', % yield, and m.p. given): Me, Me, 15, 184° ,Ph, Ph, 60, 165° ,Ph, p-MeOC6H4, 58, 186° ,Ph, p-ClC6H4, 45, 165° . The ir spectra of II resembled those of substituted thiophenes, in good agreement with the proposed pseudoaromatic structure. No ethylenic, carbonyl, or thiocarbonyl ir bands were obtained. Complete spectral data are given from 1500 to 1700 cm.-1 for I and 1000 to 1700 cm.-1 for II. 32 references
IT 7271-38-7P, Δ2-1,2,4-Triazoline-5-thione, 3,3'-octamethylenebis-
RL PREP (Preparation)
(preparation of)
RN 7271-38-7 CAPLUS
CN Δ2-1,2,4-Triazoline-5-thione, 3,3'-octamethylenebis- (8CI) (CA INDEX NAME)



L11 ANSWER 162 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

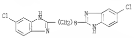
L11 ANSWER 163 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1966:420839 CAPLUS
DN 65:20839
OREF 65:3875f-g
TI The synthesis and pharmacologic evaluation of a series of 8-alkylthio-thiated theophyllines
AU Dietz, Albert J., Jr.; Burgison, Raymond M.
CS Univ. of Maryland, School of Med., Baltimore
SO Journal of Medicinal Chemistry (1966), 9(4), 500-6
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
AB A series of 8-alkylthio-thiated theophyllines were prepared and screened for their pharmacol. activity. The 8-alkylthio-6-thiotheophylline series manifested 2 types of activity, both central nervous system (CNS) depression and stimulation. The most active CNS depressant, 8-ethylthio-6-thiotheophylline, compared well with thiopental and pentobarbital with respect to induction time and sleeping time at equivalent doses in rats. 8-(2-N,N-Diethylaminoethyl)thio-6-thiotheophylline was by far the most potent CNS stimulant causing tonic and clonic convulsions and death within 2 min.
IT 6466-36-0, Theophylline, 8,8'-octamethylenebis[6-thio-
(nervous system response to)
RN 6466-36-0 CAPLUS
CN Theophylline, 8,8'-octamethylenebis[6-thio- (7CI, 8CI) (CA INDEX NAME)



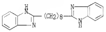
L11 ANSWER 164 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1966:401259 CAPLUS
DN 65:1259
OREF 65:203a-b
TI Photographic emulsions
PA Ferrania Societa per Azioni
SO 6 pp.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE	
PI	BE 664085		19650916	BE 1966-5085	19650518	<--
	FR 1434712			FR		
PRAI	IT		19640519			

GI For diagram(s), see printed CA Issue.
AB Compns. containing a compound of the general formula I, where X is H, NO2, a halogen, or an alkyl, aryl, aralkyl, or alkoxy group, and n is 0 or an integer, 5-25 mg. I/kg. emulsion, are prepared and have low fog values. Thus, a gelatin Ag(Br,I) emulsion containing 10% Ag halide (96% AgBr + 4% AgI) is treated with 5 mg. I (X = Me, n = 4) per kg. emulsion to give fog 0.04 and relative speed 100, and after 20 days at 50° (relative humidity 40%) gave fog 0.05 and speed 104 as compared with 0.05, 100 and 0.25, 73, resp., for the control.
IT 13014-98-7
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 13014-98-7 CAPLUS
CN Benzimidazole, 2,2'-octamethylenebis[5-chloro- (8CI) (CA INDEX NAME)



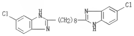
IT 5233-14-7, Benzimidazole, 2,2'-octamethylenebis-
(as photographic fog inhibitor and stabilizer)
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)



L11 ANSWER 165 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1966:401258 CAPLUS
DN 65:1258
OREF 65:202h,203a
TI Purification of cyan filter dye
PA Fuji Photo Film Co., Ltd.
SO 13 pp.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO	DATE	
PI	BE 663224		19650817	BE 1966-3224	19650429	<--
PRAI	JP		19640513			

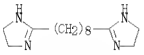
AB Loss of emulsion speed and spot formation due to the use of com. "cyan filter" dye in the emulsion itself or in an adjacent layer are reduced if yellow impurities absorbing at 390 and 415 mμ are removed. For this purpose 100 g. dye (absorption maximum 640 mμ) is dissolved in 700 cc. water at 60-70°, the pH adjusted to 4-6, and passed through a paper filter. The volume of the filtrate is reduced to 1/3 at 60-70° under reduced pressure. After addition of 100 cc. Me2CO the liquid is chilled; 70-85 g. of crystals m. >300° are recovered by filtration and drying at 60-70°.
IT 13014-98-7
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 13014-98-7 CAPLUS
CN Benzimidazole, 2,2'-octamethylenebis[5-chloro- (8CI) (CA INDEX NAME)



L11 ANSWER 166 OF 209 CAPLUS
AN 1966 105323 CAPLUS
DN 64 105323
OREF 64 19904g-h,19905a-b
TI Vinyl halide polymers cross-linked with imidazoline-bentonite reaction products
IN Isaacs, Philip K.; Dearborn, Elizabeth C.
PA W R Grace & Co.
SO 9 pp.
DT Patent
LA Unavailable
FAN.CNT 1

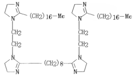
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3247140		19660419	US 1961-97422	19610322 <--
PRAI	US		19610322		

AB A bentonite (I)-polyimidazoline (II) complex, useful as a curing agent for halogenated polymers, is prepared by drying I to remove its surface water before it is composited with II, or by mixing undried I with II in the absence of external addns. of H_2O and heating to drive off I surface water before it is added to a polymeric material. Incorporation of the complex gives cured polymers that are low in odor, have low extraction in H_2O and acid, excellent adhesive properties, and a min. tendency to degrade on prolonged heating. II, which may be a 2-substituted or 1,2-disubstituted 2-imidazoline, is prepared by contact of an alkylenediamine or polyalkylene polyamine, e.g. ethylenediamine or triethylenetetraamine (III), and mono- or dicarboxylic acids, e.g. AcOH, oleic, or adipic acid, under reactive conditions of temperature and pressure. For example, sebacic acid 1, oleic acid 2, and III 2 moles were heated for 4 hrs. at 150-220° at pressures from 760 down to 15 mm. Hg with vigorous agitation in N. It gave a mixture of imidazolines (IV). Air-floated Wyoming I (100 g.) dried in a forced-draft air-oven for 0.5 hr. at 200° lost 6% of its weight. Predried I (40 g.) dispersed in 250 g. CH_2Cl_2 containing 10 g. IV and the CH_2Cl_2 evaporated in a pan at 100° gave a dry powder complex that, incorporated in Geon 121 [poly(vinyl chloride)], gave better viscosity stability and, after 2- and 4-min. cures at 200°, better color and odor than a composition containing II without I. I complexes were also prepared with 2,2'-octamethylenedi-2-imidazoline and with the product formed from the reaction products of oleic acid with III and azeleic acid with diethylene glycol.
IT 7516-99-6 7620-83-9
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 7516-99-6 CAPLUS
CN 1H-Imidazole, 2,2'-(1,8-octanediyl)bis[4,5-dihydro- (CA INDEX NAME)



RN 7620-83-9 CAPLUS
CN 2-Imidazoline, 2,2'-octamethylenebis[1-[2-(2-heptadecyl-2-imidazolin-1-yl)ethyl]- (7CI, 8CI) (CA INDEX NAME)

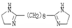
L11 ANSWER 166 OF 209 CAPLUS (Continued)



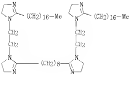
L11 ANSWER 167 OF 209 CAPLUS
AN 1966 105322 CAPLUS
DN 64 105322
OREF 64 19904e-g
TI Cross-linking low-molecular-weight polymers
IN Phillips, Leslie N.
PA Minister of Aviation
SO 6 pp.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	GB 1024222		19660330	GB 1961-24849	19610710 <--
PRAI	GB		19610710		

AB A stable, chemical inert, cross-linked polymer is manufactured by reaction of a low-mol.-weight reactive polymer containing aromatic nuclei (I) (either pendant on or in the polymer chain) with an aralkyl halide (II) containing ≥2 halomethyl groups (other than fluoromethyl groups) each attached to an aromatic nucleus to eliminate as H halide H atoms from I in the polymer and halogen atoms from the II. The remainder of the II is cross-linked directly between the I in the polymer. For example, 25 g. BzCl was refluxed in an air condenser with 1% by weight $SnCl_4$ catalyst. Vigorous evolution of HCl (gas) ensued and the liquid gradually hardened. Heating was continued until the m.p. of the resin had risen to 80°. Five g. of the fusible polybenzyl resin (soluble in $CHCl_3$ and m. 80°) was pulverized and mixed with 2.5 g. p-dichloroxylylene. The mass was heated to 113° and at 130-5° HCl was again evolved. On further rise in temperature, the mass gelled rapidly. A sample of the cross-linked resin was heated in air for 5 hrs. at 300° without loss in weight. A typical 1-stage NH_4OH-catalyzed PhOH-HCHO resin, when heated under the same conditions, lost 10% by weight and at an increasing rate as the test proceeded.
IT 7516-99-6 7620-83-9
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 7516-99-6 CAPLUS
CN 1H-Imidazole, 2,2'-(1,8-octanediyl)bis[4,5-dihydro- (CA INDEX NAME)



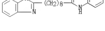
RN 7620-83-9 CAPLUS
CN 2-Imidazoline, 2,2'-octamethylenebis[1-[2-(2-heptadecyl-2-imidazolin-1-yl)ethyl]- (7CI, 8CI) (CA INDEX NAME)



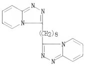
L11 ANSWER 168 OF 209 CAPLUS
AN 1966:52076 CAPLUS
DN 64:52076
OREF 64:9735b-c
TI Bis(benzimidazolyl)alkanes
IN Rai, Charanjit; Kramer, Walter E.; Kimble, Robert C.
PA Union Oil Co.
SO 3 pp.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO	DATE
PI	US 3222285		19651207	US 1962-211884	19620723 <--
PRAI	US		19620723		

AB The title compds. are prepared and can be used as corrosion inhibitors; detergent compns. containing 0.0001-0.2 weight-% benzimidazolyl compound are prepared. Thus, a mixture of 20.2 g. $HO_2C(CH_2)_8CO_2H$, 21.6 g. 1,2-$C_6H_4(NH_2)_2$, and 150 ml. polyphosphoric acid is heated 3 hrs. at 200° to give 88% 1,8-bis(2-benzimidazolyl)octane, m. 278°. Similarly prepared is 1,2-bis(2-benzimidazolyl)1,2-dihydroxyethane(I). Tide(com. detergent) (5 g.) is dissolved in water to give 1 l. solution, 50 ml. prepared solution is treated with 0.1 weight-% I, a brass strip is placed in the solution, and air is bubbled through the solution at 20-30 cc./min. for 72 hrs. at 70° to give weight-% loss 0.00, corrosion rate 0.00000 inch/year as compared with -2.17 and 0.07467, resp., for the control.
IT 5233-14-7P, Benzimidazole, 2,2'-octamethylenebis-
RL: PREP (Preparation)
(manufacture and use as corrosion inhibitor)
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)



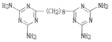
L11 ANSWER 169 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1966:27506 CAPLUS
DN 64:27506
OREF 64:5072b-d
TI 1,2,4-Triazoles. XII. Derivatives of the s-triazolo[4,3-a]-pyridine ring system
AU Potts, K. T.; Burton, H. R.
CS Univ. of Louisville, Louisville, KY
SO Journal of Organic Chemistry (1966), 31(1), 251-60
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA English
OS CASREACT 64:27506
AB Substituted s-triazolo[4,3-a]pyridines containing alkyl, aryl, alkylaryl, hetero, amino, hydroxy, mercapto, and halogen substituents at position 3 have been synthesized in a study of the chemistry of this ring system, mainly by cyclization of 2-pyridylhydrazines or their derivs. with appropriate reagents, and by modification of groups already present in the 3-position. Me substituents have also been placed at all peripheral carbon atoms. Bis(3-s-triazolo[4,3-a]pyridyl)alkanes and intermediate products have been obtained by the use of dicarboxylic acids, their anhydrides, or their esters in the above condensations. Substituents containing unsatn. or other functional groups can be introduced into position 3 of the bicyclic system by the use of the appropriate acid or ester. The structures of some interesting substituted pyridines obtained as by-products in the reaction sequences are discussed.
IT 4930-95-4P, s-Triazolo[4,3-a]pyridine, 3,3'-octamethylenebis-
RL: PREP (Preparation)
(preparation of)
RN 4930-95-4 CAPLUS
CN s-Triazolo[4,3-a]pyridine, 3,3'-octamethylenebis- (8CI) (CA INDEX NAME)



L11 ANSWER 170 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1965:499570 CAPLUS
DN 63:99570
OREF 63:18401d-f
TI Coffee stain-resistant articles from aminotriazine-formaldehyde resins
PA Allied Chemical Corp.
SO 16 pp.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	NL 6414076		19650608	NL		<--
PRAI	US		19631204			

AB An aliphatic guanamine (I) or a mixture of I and <35% melamine (II) is condensed with 1.5-3 mol HCHO/triazine equivalent by refluxing a solution of pH 7. The resin is dried, mixed with 1-3% of an acid hardener, 0.1-2% of a lubricant, and 20-30% of a filler, and is molded to make articles that are not discolored by coffee solns. Thus, 100 parts of a 50% aqueous HCHO solution and 50 parts H2O were heated to 75°, 164.7 parts 4-methyl-4-acetylpimeloguanamine was added, the solution (pH 7.0) was refluxed for 20 min. and a 25% NaOH solution was added to increase the pH to 9.8. Then a similar solution containing 300 parts resin was mixed with 84 parts α-cellulose. The mixture was dried at 93°, 1% phthalic anhydride and 3% Zn stearate (III) were added, and it was ball milled for 5 h. After addition of 0.3 part III, the composition was again ground for 1 h., granulated at room temperature, and molded at 175 kg./cm 2 and 149° for 2 min. to give articles that, after immersion in a coffee solution (100 g. coffee extract and 100 g. ground coffee in 1350 mL. H2O) for 16 h., had a whiteness of 71, while articles prepared from conventional II-HCHO resins had a whiteness of only 15 after the same test.
IT 4128-90-9, s-Triazine, 2,2'-octamethylenebis[4,6-diamino-
(reaction products with HCHO, coffee stain-resistant articles from)
RN 4128-90-9 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,8-octanediyl)bis- (CA INDEX NAME)



L11 ANSWER 171 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1965:472034 CAPLUS
DN 63:72034
OREF 63:13274b-d
TI Imidazoline derivatives
PA Monsanto Co.
SO 16 pp.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	NL 6411535		19650405	NL 1964-11535	19641002	<--
	BE 653881			BE		
	FR 1422906			FR		
PRAI	US		19631004			

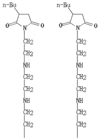
AB A poly(alkenyl)succinic anhydride was treated with a polyamine, and the resulting imide with a carboxylic acid to give the title compds. which are useful as detergents in lubricating oils. Thus, 188.6 parts polybutenylsuccinic anhydride, in which the polybutenyl group had an average mol. weight of 980, in 50 ml. PhMe was added slowly to a stirred solution of 14.5 parts diethylenetriamine in 50 ml. PhMe, the mixture refluxed 2 hrs. while the H2O formed was removed. The mixture was cooled to 70°, 8.5 parts AcOH added, and the whole refluxed until H2O formation ceased. PhMe was removed in vacuo to give 188 parts 2-methyl-1-[poly(butenyl)succinimidoethyl]-2-imidazoline. Similarly prepared were 1-[8-polybutenyl(980)succinimido)-3,6-diazaoctyl]-2-naphthenyl-2-imidazoline, 1-[2-(polybutenyl(980)succinimido)ethyl]-2-heptadecenyl-2-imidazoline-2-methyl-1-[(polybuten)yl(980)succinimido]-3-azapentyl-2-imidazoline, 1-[8-((polybuten)yl(1368)succinimido)-3,6-diazaoctyl]-2-methylimidazoline, 1-[8-((polybuten)yl(980)succinimido)-3,6-diazooctyl]-2-heptadecenyl-2-imidazoline; and 2-(heptadecenyl, heptadecadienyl)-3-[(3,6-diazahexyl)8-(polybuten)yl(980)succinimido]-1-imidazoline.
IT 104352-07-0
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 104352-07-0 CAPLUS
CN Succinimide, N,N'-[octamethylenebis(2-imidazoline-2,1-diylethyleneiminoethyleneiminoethylene)]bis[2-(butenyl)- (7CI) (CA INDEX NAME)

CM 1

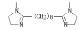
CRN 104352-06-9
CMF C42 H76 N10 O4

L11 ANSWER 171 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 2-A



L11 ANSWER 172 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1965 472033 CAPLUS
DN 63 72033
OREF 63 13273g-h, 13274a-b
TI Halogenated alkyl and aryl substituted glycolurils
IN Slezak, Frank B ; Bluestone, Henry
PA Diamond Alkali Co
SO 8 pp
DT Patent
LA Unavailable
FAN CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	US 3187004		19650601	US 1961-106505	19610501 <--
PRAI	US		19610501		

GI For diagram(s), see printed CA Issue

AB Com 37% pyruvic aldehyde solution (325 g), 480 g urea, 800 cc H2O, and 16 cc concentrated HCl were mixed in a 2-1. beaker to a gentle boil Insoluble product began to form at 80° After boiling gently for 15 min , the mixture was cooled and chilled in ice to give 70 8 g 3a-methylglycoluril (I), m. 258-9° Similarly prepared were: 3a-ethyl-6a-methylglycoluril, 50%, m 320-1° (decomposition), gtyoxal monoureide, 45%, m 140-1° ;1,3-dimethylglycoluril, 27%, m 254-6° ,1-isopropylglycoluril, 37%, m. 248-9° ; 1,3-diisopropylglycoluril, 71%, m 315° (decomposition); 1,4 and (or) 1,6-diisopropylglycoluril, 32%, m. 306-7° ,1-butylglycoluril, 31 5%, m 267-8° ;1-benzylglycoluril, 65%, m. 283-4° ; 1-phenylglycoluril, 82%, m 300° ;1,4- or 1,6-diphenyl, glycoluril, 35%, m 310-11° ,1,4- or 1,6-dibenzylglycoluril 32%, m. 303-5° ,1,3,4,6-tetrachloro-3a-methylglycoluril, 96 5%, m. 147'-8° ,1,3,4,6-tetrachloro-3a-ethyl-6a-methylglycoluril, 92 5%, m 205-8° ,4,6-dichloro-1,3-dimethylgycoluril, 77%, m 114-16° ,3,4,6-trichloro-1-isopropylglycoluril, 87 5%, m. 125-6° ,4,6-dichloro-1,3-diisopropylglycoluril, 99%, m. 148-9° ,dichloro-1,4-diisopropylglycolnril, 95%, m. 139-40° , 1-(butyl)-3,4,6-trichloroglycoluril, 93%, m. 67-8° ; 1-benzyl-3,4,6-tri-chlorogycoluril, 99%, m 160-1° ; 1-phenyl-3,4,6-trichloroglycoluril, 84%, m. 140-1° . These compds. protect tomato foliage against Alternaria solani, Phytophthora infestans, Xanthomonas phaseoli, Staphylococcus aureus, and Escherichia coli.

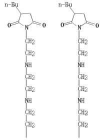
IT 104352-07-0
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 104352-07-0 CAPLUS
CN Succinimide, N,N'-[octamethylenebis(2-imidazoline-2,1-diylethyleneiminoethyleneiminoethylene)]bis[2-(butenyl)- (7CI) (CA INDEX NAME)

CM 1

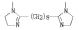
CRN 104352-06-9
CMF C42 H76 N10 O4

L11 ANSWER 172 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 2-A



L11 ANSWER 173 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1965 424837 CAPLUS
DN 63 24837
OREF 63 4472h, 4473a
TI Vinyl or vinylidene halide polymers and copolymers and imidazoline-metal curing systems for them
IN Nimoy, Melvin; Dearborn, Elizabeth C.; Isaacs, Philip K.
PA W R. Grace & Co
SO 6 pp
DT Patent
LA Unavailable
FAN CNT 1

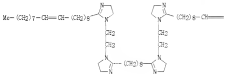
	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	US 3183207		19650511	US 1960-61831	19601011 <--
PRAI	US		19601011		

GI For diagram(s), see printed CA Issue.

AB Thermosetting polymers having improved solvent resistance and adhesive properties consist of a halogenated polymeric material, an imidazoline (I), where R is a C1-36 aliphatic group, and R1 is H or CH2CH2R2, and R2 is H, OH, NH2, or another imidazoline group, as a curing agent, and compds of Zn, Cd, Hg, or Pb which regulate the curing action of the imidazoline For example, I (prepared by heating 2 moles oleic acid, 1 mole sebacic acid, and 2 moles triethylenetetramine for 4 hrs. at 150-220° and 760-15 mm under N) 2, Santicizer B-15 5, and Saran F242 5 parts were mixed To a part of the mixture, 2 parts ZnO was added. The latter composition was more stable to heat and had useful sealing properties for building construction.

IT 2897-45-2
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 2897-45-2 CAPLUS
CN 2-Imidazoline, 2,2'-octamethylenebis[1-[2-[2-(9-octadecenyl)-2-imidazolin-1-yl]ethyl]- (8CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

═CH- (CH2)7-Me

L11 ANSWER 174 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN

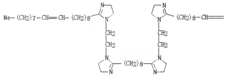
AN 1965:424836 CAPLUS
DN 63:24836
OREF 63:4472g-h
TI Polymerizing or curing epoxides with tetravalent tin compound catalysts
IN Proops, William R.
PA Union Carbide Corp.
SO 17 pp.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO	DATE
PI	GB 991910		19650512	GB 1961-16922	19610510 <--
	US 3208955		19650928	US 1960-28549	19600512 <--
PRAI	US		19600512		

AB Tetravalent stannic acylates or alkoxides of the formula Sn(OR)4, where R is a C1-18 saturated or unsatd. aliphatic hydrocarbon, are used as catalysts for curing polyepoxides containing a cyclohexene or cyclopentene oxide group Epoxides and hardeners are mixed at room temperature or warmed to a min temperature for solution The catalyst (0.1-10% by weight) is added The tubes are heated to 150° , sealed, and baked at 150° Evaluation of cured resins from various epoxides, hardeners, and catalysts appears in 63 examples. Sn tert-amyl oxide, Sn n-amyl oxide, Sn octoate, and Sn acetate are used as catalysts.

IT 2897-45-2
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 2897-45-2 CAPLUS
CN 2-Imidazoline, 2,2'-octamethylenebis[1-[2-[2-(9-octadecenyl)-2-imidazolin-1-yl]ethyl]- (8CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

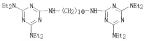
═CH- (CH2)7-Me

L11 ANSWER 175 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1963 455113 CAPLUS
DN 59 55113
OREF 59 10088g-h,10089a-g
TI Alkylated 2,4,6-triamino-s-triazines
PA J R Geigy A -G
SO 51 pp
DT Patent
LA Unavailable
FAN CNT 1

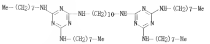
	PATENT NO	KIND	DATE	APPLICATION NO	DATE	
PI	BE 619876		19630107	BE		<--
	FR 1328169			FR		
	GB 999614			GB		
	US 3278436		19661011	US 1963-266828	19630321	<--
PRAI	CH		19610707			

GI For diagram(s), see printed CA Issue
AB Cyanuric chloride is treated with primary and secondary amines and with polyamines in 3 steps to give the title compds (where all the amino groups have at least one alkyl substituent and where some of the prepared compds contain more than 1 s-triazinyl group), which can be used as lubricants and as hydraulic fluids. Thus, a mixture of 160 parts 2-diethylamino-4-dibutylamino-6chloro-s-triazine, 29 8 parts 1,6-diaminohexane, and 26 parts powdered NaOH is heated at 120° for 4 hrs., diluted with 170 parts xylene, and refluxed 4 hrs. The mixture is filtered, the filtrate washed (H2O), xylene distilled, and the residue heated 1 hr at 240° at 0 5 mm to give 161 parts 1,6-bis(2-diethylamino-4-dibutylamino-s-triazin-6-ylamino)hexane (I), n25D 1.5303, 93.8% yield, viscosity 1260 (100° F.)and 120 9 (210° F.),A.S.T M. slope 0 740, loss of weight after 6 hrs. at 380° and 400° :2.34 and 7 42%, resp., viscosity variation after 6 hrs. at 380° and 400° measured at 210° F.):-5.4 and -4 6%, resp. Similarly prepared are II (R, R1, R2, R3, Z, m.p. given) Et, Et, Bu, Bu, A, approx. 40° , Bu, Bu, Bu, Bu, B, 92-3° ; Bu, Bu, Bu, Bu, NHCH2CHMeNH, 55° , Bu, Bu, Bu, Bu, NH(CH2)3OCHMeCH2O(CH2)3NH, - (n25D 1 5095), Bu, Bu, Bu, Bu, C, - (n25D 1.5238); Bu, Bu, Bu, Bu, D, -; Bu, Bu, H, C18H37, NH(CH2)6NH, 72-3° ; Et, Et, Me, C12H25, NH(CH2)6NH, (n25D 1 5172); Et, Et, H, iso-Pr, NH(CH2)6NH, 52-4° ; Bu, Bu, NR2R3 =) hexamethylenimino, NH(CH2)6NH, - (n25D 1.5444); Bu, Bu, Bu, Bu, E, - (n25D 1 5252), Bu, Bu, Bu, Bu, F, 75-80° ; H, C8H17, H, C8H77, NH(CH2)10NH, - (n25D 1 5218); Bu, Bu, H, C18H37, G, approx. 95° , Et, Et, Bu, Bu, H, -, Bu, Bu, Bu, Bu, J, 82-92° (b0 001 240°),Bu, Bu, Bu, Bu, K, -, Et, Et, Bu, Bu, L, -; allyl, allyl, allyl, allyl NH(CH2)6NH, - (n25D 1 5602); Me, Me, Ph, Me, NH(CH2)6NH, 57-60° , H, iso-Pr, Et, Et, NH(CH2)2NH, 69-72° , H, Et, H, Et, NH(CH2)2NH, 88-90° ,Me, Me, Me, Me, NH(CH2)6NH, 163-5° ,Me, Me, Me, Me, NH(CH2)2NH, 210-11° (EtOH), Et, Et, Et, Et, NH(CH2)6NH, -, H, Et, H, Et, NHOH); Et, Et, Et, NH(CH2)6NH, -; H, Et, H, Et, NHCH2)6NH, 90° ,Bu, Bu, Bu, Bu, NH(CH2)6NH, -4° ; Bu, Bu, Me, Me, NH(CH2)6NH, 15° ,Bu, Bu, Bu, Bu, NH(CH2)8NH, -4° ,Bu, Bu, Me, Me, NH(CH2)6NH, 15° ,Bu, Bu, Bu, Bu, NH(CH2)8NH, -13° ,Et, Et, Et, Et, NH(CH2)10NH, 14° ;Bu, Bu, Bu, Bu, NH(CH2)2O(CH2)2O(CH2)2NH, -11° ,Bu, Bu, Bu, Bu, M, approx. 25° ,Bu, Bu, Bu, Bu, NBuCH2CH2Bu, 76-8° ,Bu, Bu, C18H37, C18H37, NH(CH2)6NH, 2° ,Bu, Bu, Et, Et, NH(CH2)2NH, 59° ;and (RR1N=) pentamethylenimino, (R2R3N=) pentamethylenimino, NH(CH2)6NH, 198° Also prepared is III A mixture of 50 parts I and 50 parts ester from sebacic acid and poly(propylene glycol) ("Reoplex 100") has the following properties viscosity 6 263 centistokes (37.8°)and 265 centistokes (98 8°),A S T M slope 0 492

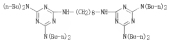
L11 ANSWER 175 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
IT 97574-03-3P, Melamine, N2,N2'-decamethylenebis[N4,N4,N6,N6-tetraethyl- 97923-57-4P, Melamine, N2,N2'-decamethylenebis[N4,N6-dioctyl- 97952-01-7P, Melamine, N2,N2'-octamethylenebis[N4,N4,N6,N6-tetrabutyl-
RL PREP (Preparation)
(preparation of)
RN 97574-03-3 CAPLUS
CN Melamine, N2,N2'-decamethylenebis[N4,N4,N6,N6-tetraethyl- (7CI) (CA INDEX NAME)



RN 97923-57-4 CAPLUS
CN Melamine, N2,N2'-decamethylenebis[N4,N6-dioctyl- (7CI) (CA INDEX NAME)

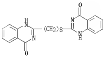


RN 97952-01-7 CAPLUS
CN Melamine, N2,N2'-octamethylenebis[N4,N4,N6,N6-tetrabutyl- (7CI) (CA INDEX NAME)



L11 ANSWER 176 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1963 46725 CAPLUS
DN 58 46725
OREF 58 7937g-h,7938a-d
TI The reaction of free anthranilic acid with free imido-acid esters
AU Ried, Walter; Stephan, Wolfgang
CS Univ Frankfurt, Germany
SO Chemische Berichte (1962), 95, 3042-7
CODEN CHBEAM, ISSN 0009-2940
DT Journal
LA Unavailable
OS CASREACT 58 46725
GI For diagram(s), see printed CA Issue
AB R = 4-hydroxy-2-quinazolyl (Ia) throughout this abstract Free o-H2NC6H4CO2H (I) with imidoacid esters yields 4-hydroquinazoline derivs The preparation of a series each of R(CH2)nCN (Ib), R(CH2)nCO2 (II), and R(CH2)nR (III) is described The appropriate dinitrile (0.2 mol), 0.2 (or 0 4) mole absolute EtOH, and 100 cc dry Et2O treated at -10° with 0 2 (or 0 4) mole dry HCl, and kept 48 h at 0° ,the supernatant Et2O replaced by fresh Et2O, the mixture kept 12 h., and scratched occasionally, this treatment repeated until the product crystallized (if crystallization did not occur the oily HCl salt was used for the further reactions), the crystalline HCl salt added at -10° to 200 g. aqueous 40% K2CO3 and 200 cc Et2O, and the Et2O phase worked up gave about 50% corresponding imidoacid ester, in this manner were prepared the following EtOC(NH)(CH2)nCN (n and b p /mm given) 3, 83° /0.2;4, 91° /0 2,5, 105° /0 3,6, 102° /0.1;8, 123° /0 1 Similarly were obtained the following EtOC(NH)(CH2)nCO2Et (same data given): 5, 95° /0.2,6, 106° /0 2,8, 131° /0 1 I (13.7 g) in 70 cc. MeOH and 11.2 g EtOC(NH)CH2CN refluxed 1 5 h., and the mixture kept 1 h. at 0° and filtered yielded 80% RCH2CN (IV), m. 235° (decompose) (MeOH). Similarly were prepared the following Ib (n, % yield, and m.p given) 2 (V), 70, 242° (decomposition) (MeOH), 3, 50, 173° (H2O) I (13.7 g) in 100 cc dry Et2O kept 48 h with the exclusion of air at room temperature with 14 2 g EtOC(NH)(CH2)4CN and the product filtered off yielded 25% Ib (n = 4), m 166° (H2O) Similarly was prepared R(CH2)5CN, 15%, m 140° (H2O) V (2 g.) in 10 cc 50% aqueous KOH refluxed 1 h., cooled, diluted with 15 cc H2O, filtered, neutralized with 20% HCl, and filtered, and the crude residue repptd. from 20% aqueous K2CO3 with 20% HCl gave 77% R(CH2)2CO2H, m 225° (decomposition) (AcOH) Similarly were prepared the following II (n, % yield, and m p. given) 1, 80, -- (decompose with decarboxylation at room temperature), 3, 80, 270° (decomposition) (H2O), 4, 80, 203° (H2O), 5, 75, 197° (H2O) I (5 5 g) in 30 cc hot AmOH treated with 4 3 g [(CH2)3C(NH)OEt]2, the mixture refluxed 5 h , kept 1 h at room temperature, and filtered yielded 35% R(CH2)6R, m 310° (decomposition) Similarly were prepared the following III (n, % yield, and m p given) 3, 30, 320° (decomposition), 4, 20, 345° (decomposition), 5, 25, 300° (decomposition), 8, 30, 260° ,all III were recrystd from AcOH IV (3 7 g) and 4 2 g I ground together, heated 2 5 h at 160-70° ,boiled twice with 40-cc portions MeOH and then with 20 cc AcOH, and the insol material filtered off hot each time gave 3 g 2-amino-3-(4-hydroxy-2-quinazolyl)-4-hydroxyquinoline (VI), m apprx 340° (unsharp) I (5 5 g.) in 30 cc AmOH refluxed 5 h with 3 2 g CH2(CO2Et)2, kept 12 h at room temperature, and filtered yielded 1 5 g VI
IT 15445-45-1P, 4-Quinazolinol, 2,2'-octamethylenedi-
RL PREP (Preparation)
(preparation of)
RN 15445-45-1 CAPLUS
CN 4(1H)-Quinazolinone, 2,2'-octamethylenedi- (8CI) (CA INDEX NAME)

L11 ANSWER 176 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

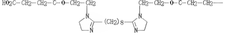


L11 ANSWER 177 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1962:404036 CAPLUS
DN 57:4036
OREF 57:838a-i,839a-f
TI Cyclic amidines
IN Hughes, William B.; Stromberg, Verner L.
PA Petrolite Corp.
SO 11 pp.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3020276		19620206	US 1958-718391	19580303 <--
PRAI	US		19580303		

GI For diagram(s), see printed CA Issue.
AB The hydroxy alkyl cyclic amidines (I) were prepared by treating a polyamine containing a terminal alkanol group with a carboxylic acid at 150-75°, employing an azeotropic agent to remove H2O; completion of reaction was judged by separation of 2 moles H2O for each CO2H group. (X = CH2CH2OH, Y = CH2CH2OCH2CH2OH and Z = CH2CH2OCH2CH2OCH2CH2OH throughout this abstract). Thus, a solution of 1 mole HOCH2CH2NHCH2CH2NH2 (II) and 1 mole oleic acid (III) in 300 g. xylene was refluxed 3 hrs. under a Dean-Stark water trap condenser to give IV (R = C17H33, R' = X). II (2 moles) and 1 mole sebacic acid (V) gave VI (n = 8, R' = X). HOCH2CH2NHCH2CH2CH2NH2 (VII) (1 mole) and 1 mole C17H,35CO2H (VIII) gave IX (R = C17H35, R' = X). VII (2 moles) and 1 mole terephthalic acid (XI) gave XII (R' = X). The polyalkylated hydroxy cyclic amidines were obtained by oxyalkylation (CA 51, 17150c) of I. Thus, 1 mole IV (R = C17H32, R' = X) was treated with 1 mole ethylene oxide (XIII) at 125-30° at 10-15 lb./sq. in. 1/2 hr. followed by addnl. stirring 1/2 hr. to give IV (R = C17H33, R' = Y). By using propylene oxide or 2 moles XIII instead of one above was obtained IV [R = C17H33, R' = CHMeCH2OCHMeCH2OH (XIV)] or IV [R = C17H33, R' = (CH2CH2O)3H]. Following IV [given RCO2H (source of RC) and R'] were obtained in a similar way using appropriate starting materials: C11H23CO2H (XV), X; hexanoic, X; iso-BuCO2H (XVI), X; VIII, X; melissic acid (XVII), X; phenylstearic acid (XVIII), X; PhCO2H (XIX), X; cresotinic acid (XX), X; naphthenic acid (XXI), X; III, X; III, Y; III, XIV; XV, Y; C15H31CO2H (XXII), Y; cerotic acid (XXIII), Y; p-tertbutylbenzoic acid (XXIV), Y; XIX, Y; MeC6H4CO2H, Y; XXI, Y; HCO2H (XXV), Z; methyloctadecanoicacid (XXVI), Z; C9H19CO2H, Z; VIII, Z; XVIII, Z; XX, Z; linoleic acid (XXVII), Z; III, Z; 3-MeOC6H4CO2H (XXVIII), Z; XXI, Z. The following IX [given RCO2H (source of RC) and R'] were prepared: XXV, X; AcOH, X; PrCO2H (XXIX), X; BuCO2H (XXX), X; XVI, CHMeCH2OH (XXXI); Me3CCO2H (XXXII), X; C8H17CO2H, X; XV, Y; VIII, X; arachidic acid, X; eicosanecarboxylic, XXXI; XXIII, X; XVII, X; XVIII, X; XIX, Y; XX, X; p-MeC6H4CO2H, X; XXIV, X; XXVIII, X; III, X; undecylenic acid, X; XXVII, X; XXIX, X; XXVI, X. The following VI [given HO2CRCO2H (source of -CRC-) and R'] were prepared: succinic acid (XXXIII), X; adipic acid (XXXIV), X; suberic acid (XXXV), X; sebacic acid (XXXVI), X; nonadecanedicarboxylic acid (XXXVII), X; diglycolic acid (XXXVIII), X; ethylenebis(glycolic acid) (XXXIX), X; methylenedibenzoic acid (XL), X; stearylmalonic acid (XLI), X; phthalic acid (XLII), X; XXIII, Y; glutaric acid (XLIII), Y; pimelic acid (XLIV), Y; azelaic acid (XLV), Y; eicosanedicarboxylic (XLVI), Y; dilinoleic acid (XLVII), Y; isophthalic acid (XLVIII), Y; XXXVIII, Y; laurylmalonic acid, Y; XL, Y; XXXIV, Z; XXXIII, Z; XXXV, Z; XLIV, Z; XXXVII, Z; XXXVIII, Z; XL, Z; XLI, Z; stearylsuccinic acid, Z; XI, Z. The following XII [given HO2CRCO2H (source of -CRC-) and R'] were prepared: XLII, X; XXXIII, X; XLIII, X; XXXIV, X; XXXV, XXXI; XXXVI, X; XLIV, Y; XLV, X; XXXVII, X; XLVI, X; XXXVIII, X; XXXIX, XXXI; malonic acid, XXXI; XLVII, X; XLI, X; laurylsuccinic acid, X; isotetradecylsuccinic acid, X; XLII, Y; XLVIII, X; XI, X; glutaconic acid, X; XXXVI, X. Partial ethers of cyclic amidines were prepd. as follows. A soln. of 1 mole IV (R = C17H32, R' = X) and 1 mole XXXVI in 300 g. xylene was refluxed and azeotroped until 1 mole H2O was removed and the temp. maintained at 150-75° 5 hrs. to give IV [R = C17H33, R' = CH2CH2O2C(CH2)3CO2H]. The following IV (R' given, R is C17H33), IX (R' given, R is C17H35), and VI (R' given) were similarly obtained: IV, CH2CH2O2CC4H4CO2H; IV, CH2CH2O2CACO2H (A is dilinoleic acid residue); IV, (CH2CH2O)3COCH2OCH2CO2H; IX, CH2CH2O2C(CH2)4CO2H; and VI, CH2CH2O2C(CH2)2CO2H. The diamine esters (cyclic amidine esters) were prepd. by treating the partial ester (or the partial ester having the reactive carboxylic group protected with an ester of low boiling alc.), with the desired diamine. Thus, IV (R = C17H33, R' = CH2CH2O2CC4H2COgH) [obtained by reaction of 1 mole IV (R = C17TH35, R' = X) with 1 mole XXXIV] on reaction with C18H37TNHCH2CH2CH2NH2 gave IV (R = C17H35, R' = XLIX). The following cyclic amidine esters, IV (R = C17H33, R' given), IX (R and R' given), and VI (R' given), were prepd. in a similar way from appropriate starting materials: IV, L; IV, LI; IV, LII (R group in this and following is derived from soya); IV, LIII; IX, C17H35, LIV; and VI, LV. These compds. were used for inhibition of corrosion (caused by H2S, CO2, inorg. acids, org. acids, combination of each with O and with each other and O) in the petroleum industry with specific reference to producing wells, pipe lines, refineries, tank storage, etc., these could be used as asphalt additives to increase the adhesiveness of the asphalt to the mineral aggregates. In the form of H2O soluble salts, they were useful as bactericides in the secondary recovery of oil. In addn., they could be used in agriculture, anti-static treatment, building materials, cosmetics, de-emulsifying, detergents, leather, metals, paints, petroleum, textiles and in the prepn. of bentoniteamine complexes, metal amine complexes, pentachlorophenates, quaternaries, plastisols, and rodent repellents.
IT 106422-82-6
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 106422-82-6 CAPLUS
CN Succinic acid, diester with 2,2'-octamethylenedi-2-imidazoline-1-ethanol (7CI) (CA INDEX NAME)

PAGE 1-A

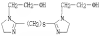


PAGE 1-B

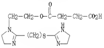
—CO2H

IT 90745-66-7P, 2-Imidazoline-1-ethanol, 2,2'-octamethylenedi- 856331-52-7P, 2-Imidazoline-1-ethanol, 2,2'-octamethylenedi-, succinate
RL: PREP (Preparation)
(preparation of)
RN 90745-66-7 CAPLUS

L11 ANSWER 177 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
CN 1H-Imidazole-1-ethanol, 2,2'-(1,8-octanediyl)bis[4,5-dihydro- (CA INDEX NAME)



RN 856331-52-7 CAPLUS
CN Butanedioic acid, 1-[2-[2-[8-(4,5-dihydro-1H-imidazol-2-yl)octyl]-4,5-dihydro-1H-imidazol-1-yl]ethyl] ester (CA INDEX NAME)

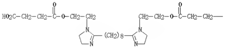


L11 ANSWER 178 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1962:404035 CAPLUS
DN 57:4035
OREF 57:838a
TI Oxazines
IN Campen, Marcus G. Van, Jr.; Tilford, Charles H.; Andrews, Edwin R.
PA Richardson-Merrell Inc.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3004025		19611010	US 1958-710173	19580121 <--
PRAI	US		19580121		

AB See abstract from J. Am. Chemical Society, CA 49, 8958a.
IT 106422-82-6
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 106422-82-6 CAPLUS
CN Succinic acid, diester with 2,2'-octamethylenedi-2-imidazoline-1-ethanol (7CI) (CA INDEX NAME)

PAGE 1-A



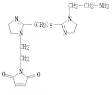
PAGE 1-B

—CO2H

L11 ANSWER 179 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1960 47039 CAPLUS
DN 54 47039
OREF 54 9270b-d
TI Corrosion inhibitors for oil-well brines
IN Hughes, Wm B
PA Cities Service Research & Development Co
DT Patent
LA Unavailable
FAN CNT 1

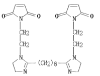
	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	US 2918474		19591222	US 1956-590399	19560611 <--

AB A dibasic acid, such as malonic, succinic, sebacic, or phthalic acid, is treated with a polyamine such as diethylenetriamine, mole ratio 1 to 2, to form a diimidazoline compound (I) H_2O is removed by azeotropic distillation I is treated with maleic anhydride to form diimidazoline-mono(or di)pyrrolinedione compds. The preparation and per cent protection of steel samples in brine, kerosine, H_2S, and a N atom for 48 hrs at 10 and 25 p p m levels are given At 25 p p m , 99% protection is obtained with a diethylenetriamine-terephthalic acid-maleic anhydride compound prepared in a 2 1 2 mole ratio
IT 103650-74-4P, Maleimide, N-[2-[2-[8-[1-(2-aminoethyl)-2-imidazolin-2-yl]octyl]-2-imidazolin-1-yl]ethyl]- 120639-35-2P, Maleimide, N,N'-[octamethylenebis(2-imidazoline-2,1-diylethylene)]di-
RL PREP (Preparation)
(preparation of)
RN 103650-74-4 CAPLUS
CN Maleimide, N-[2-[2-[8-[1-(2-aminoethyl)-2-imidazolin-2-yl]octyl]-2-imidazolin-1-yl]ethyl]- (6CI) (CA INDEX NAME)



RN 120639-35-2 CAPLUS
CN Maleimide, N,N'-[octamethylenebis(2-imidazoline-2,1-diylethylene)]di- (6CI) (CA INDEX NAME)

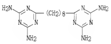
L11 ANSWER 179 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L11 ANSWER 180 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1960 6667 CAPLUS
DN 54 6667
OREF 54 1326c-e
TI Regeneration of ammonia and carbon dioxide in urea production
IN Pozin, M Kh , Kopylev, M B A , Tereshchenko, L Ya ; Orekhov, I. I.
DT Patent
LA Unavailable
FAN CNT 1

	PATENT NO	KIND	DATE	APPLICATION NO	DATE
PI	SU 118094		19590220	SU	<--

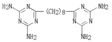
AB NH_3 and CO_2 are selectively adsorbed in aqueous solns of monoethanolamine and monoammonium phosphate, resp , and later driven out of these solns. The process is carried out in 3 stages In the 1st stage, all of the CO_2 and 1/4 of the NH_3 is adsorbed in a solution of monoethanolamine, while the remainder of the gas is returned into the synthesis cycle. In the 2nd stage, all of the CO_2 obtained by adsorption in a solution of monoammonium phosphate from the gases given off in regeneration of the monoethanolamine solution is returned to the cycle In the 3rd stage, all of the NH_3 adsorbed in the monoethanolamine of the 1st stage is returned to the cycle.
IT 4128-90-9P, s-Triazine, 2,2'-octamethylenebis[4,6-diamino-
RL PREP (Preparation)
(preparation of)
RN 4128-90-9 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,8-octanediyl)bis- (CA INDEX NAME)



L11 ANSWER 181 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1960.6666 CAPLUS
DN 54.6666
OREF 54:1326b-c
TI Diguanamines
IN Giller, Arnold
PA Chemische Werke Albert
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO	DATE
PI	DE 1019310		19571114	DE	<--

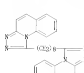
AB Adiponitrile (54 g.) 71.5 g. dicyandiamide, 21.2 g dicyanodiamide Na derivative (neutralization equivalent about 108, decompose 241°),and 150 g. NH_3 was heated 5 hrs. at 135° ,the mixture cooled to 60° ,the NH_3 blown off, and the resulting product purified by washing and boiling with H_2O to give adipoguanamine, decompose 299-300° . Similarly were prepared: sebacoguanamine, decompose 302-4° ,succinoguanamine, decompose about 419° ;terephthaloguanamine, decompose 400° .
IT 4128-90-9P, s-Triazine, 2,2'-octamethylenebis[4,6-diamino-
RL: PREP (Preparation)
(preparation of)
RN 4128-90-9 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,8-octanediyl)bis- (CA INDEX NAME)



L11 ANSWER 182 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1959:119488 CAPLUS
DN 53:119488
OREF 53:21309g-i
TI Stabilized photographic emulsions
IN VanAllan, James A
PA Eastman Kodak Co.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2865749		19581223	US 1956-620572	19561106 <--
	GB 868787			GB	

AB Compds. containing the indene ring incorporated into photographic emulsions protect the emulsions from loss of sensitivity upon aging caused by inception of chemical fog. Compds. found advantageous in this respect were 2,3,9b-triazabenz[g]indene (I), 1-Me derivative of I, 1-Et derivative of I, 1-isopropyl derivative of I, 1-HO derivative of I, 1-Ph derivative of I, 1-(2-HOC6H4) derivative of I, 1-(1-hydroxy-2-naphthyl) derivative of I, 1-(2-hydroxy-5-sulfophenyl) derivative of I, 1-(1-hydroxy-4-sulfo-2-naphthyl) derivative of I, 5-Me derivative of I, 1,8-bis(2,3,9b-triazabenz[g]inden-1-yl)octane, 1,2,3,9b-tetrazabenz[g] indene (II), and 5-Me derivative of II. Thus, when 0.3 g. I per mole of AgX was used, there was practically no difference from the control when fresh. After 1 week's incubation, the treated emulsion was slightly superior to the control in speed and contrast and much superior in lack of fog.
IT 123966-14-3, s-Triazolo[4,3-a]quinoline, 1,1'-octamethylenebis-
(as photographic emulsion stabilizer)
RN 123966-14-3 CAPLUS
CN s-Triazolo[4,3-a]quinoline, 1,1'-octamethylenebis- (6CI) (CA INDEX NAME)



L11 ANSWER 183 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1959:11794 CAPLUS
DN 53:11794
OREF 53:2215g-i,2216a-e
TI An improved synthesis of 5-substituted tetrazoles
AU Finnegan, William G.; Henry, Ronald A.; Lofquist, Robert
CS U.S. Naval Ordnance Test Sta., China Lake, CA
SO Journal of the American Chemical Society (1958), 80, 3908-11
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA Unavailable
OS CASREACT 53:11794
AB 5-Substituted tetrazoles (I) are readily obtained from alkyl-or arylnitriles and inorg. azides in HCONMe2 (II) or Et2SO. C7F15CN, b705 100-2° ,was prepared in 52% yield from the acid by the method of Gilman and Jones (C.A. 37, 5696l). The appropriate nitrile (0.2 mole), 14.3 g. NaN3, LiCl, the appropriate ammonium chloride or catalyst in the desired molar ratio, and 100 cc. solvent heated with stirring, the solvent evaporated in vacuo on the steam bath, and the residue (if H2O-insol.) dissolved in 100 cc. H2O, acidified with concentrated HCl to pH 2, cooled to 5° ,and filtered gave the corresponding I (method A). The crude residue (if soluble or partially soluble in H2O) dissolved in 100 cc. H2O, basified with 50% aqueous NaOH, and evaporated to dryness in vacuo on the steam bath, the residue dissolved in 100 cc. H2O, acidified to pH 2 with concentrated HCl, and evaporated to dryness on the steam bath, and the residue extracted with EtOH or MeOH yielded the corresponding I (method B). The finally acidified solution in method B concentrated, cooled to room temperature, adjusted to pH 5
with base, treated with 0.1 mole aqueous Cu(OAc)2, and filtered, the residue washed with H2O, suspended in 100-200 cc. H2O, heated with stirring to 50° ,bubbled with H2S, and filtered, and the filtrate evaporated to dryness in vacuo gave the corresponding I (method C). In this manner were prepared the following I (5-substituent, m.p., % yield, azide used, reaction temperature, reaction time in hrs., reaction medium used, and method used given): H, 147-51° (decomposition) (EtOAc), 69.2, Me3NHN3, 105-10° ,22, II, B; Pr, 63-4° (iso-Pr2O), 73.5, NH4N3 (III), 120-5° ,24, II, C; HOCH2CH2, 83-4° (EtCOMe), 93.3° ,III, 120-5° ,24, II, B; MeO(CH2)2, 66-7° (EtOAc), 100, III, 120° ,18, II, B; EtO2CCH2, 128-30° (iso-PrOH), 81, III, 95° ,8, II, A; NaOSO2(CH2)2, 208-9° (decomposition) (95% EtOH), -, III, 120-5° ,7, II, B; PhCH2, 123-5° [(CH2Cl)2], 84.1, III, 120-5° ,7, II, A; MeS, 150-1° (decomposition) (H2O), 91.5, III, 95° ,6, II, A; PhCH2S, 137.5-8.5° (30% EtOH), 22, III, 95° ,5, II, A; C7F15, -, 100, III, 95° ,4, II, A; Ph (IV), 213-15° (decomposition) (H2O), 100, III, 125° ,7, II, A; IV, -, 90.6, Me3NHN3, 100° ,3, II, A; IV, -, 90, III, 100° ,96° ,Ethyl Cellosolve, A; IV, -, 51.3, NaN3, reflux, 20.5, II, A; IV, -, 43.9, NaN3, 120-5° ,24, Me2SO, A (the Na salt was precipitated with CH2Cl2 and treated in H2O with concentrated HCl to yield IV); IV, -, 19.4, NaN3, 126° ,24, Methyl Cellosolve, A; p-H2NC6H4, 268-70° (aqueous II), -, -, -, -, -, -; p-NCC6H4, above 300° (decomposition) (H2O), -, -, -, -, -, -; bis(5-tetrazolyl)methane, 215-19° (decomposition) (MeCN), 100, III, 95° ,16, II, A; 1,4-bis(5-tetrazolyl)butane, 204-5° (decomposition) (95% EtOH), 26, III, 100° ,96, Ethyl Cellosolve, A; 1,4-bis(5-tetrazolyl)- benzene (V), above 300° (decomposition) (95% EtOH), 100, III, 125° ,7, II, A.
A series of runs was performed for the preparation of IV by treating 0.2 mole PhCN, 100 cc. HCONMe2, and 0.22 mole NaN3 during 7 hrs. at 123-7° in the presence of various added salts or catalyst (added material, mole-%, and % yield of IV given): none, -, 24.9; NH4Cl, 10, 59.6 (54.1); Bu2NH.HCl, 5, 51.6; PhNH2.HCl, 5.8, 57.2; PhNH2.HCl, 10, 73.8; EtSO4H, 4,

L11 ANSWER 183 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
51.3; EtSO3H (in 100 cc. MeOCH2CH2OH), 8, 16.3; Et2O-BF3, 10, 55.6; Me4NCl, 100, 40.4; LiCl, 100, 48.6; H2O, - (5 cc.), 5.8. The appropriate substituted benzonitrile (0.2 mole), 0.22 mole III, and 100 cc. HCONMe2 yielded during 3 hrs. at 100° varying yields of I depending on the substituent (5- substituent of I and % yield given): p-NH2, 10.4, p-MeO 43.2, p-Me 63.8, H, 75.6, p-NO2 96.9, m-NO2 99.5, p-CN 90.5 (and a small amt. of V).
IT 7760-59-0P, Tetrazole, 5,5'-octamethylenebis-
RL: PREP (Preparation)
(preparation of)
RN 7760-59-0 CAPLUS
CN 1H-Tetrazole, 5,5'-(1,8-octanediyl)bis- (9CI) (CA INDEX NAME)

L11 ANSWER 184 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1959:7079 CAPLUS
DN 53:7079
OREF 53:1355f-i,1356a-e
TI 1,ω-Di(2-perimidyl)alkanes and related homologous series
AU Ried, Walter; Patschorke, Joachim
CS Univ. Frankfurt/Main, Germany
SO Justus Liebigs Annalen der Chemie (1958), 616, 87-95
CODEN: JLACBF; ISSN: 0075-4617
DT Journal
LA Unavailable
AB cf. C.A. 3, 1810. 1,8-Naphthylenediamine (I) (2 moles) heated cautiously with 1 mole (CH2)n(CO2H)2 (II) or (CH2)n(CO2Et)2 (IIa) (n = 0 to 8) gave the title compds. (III) or the ω-perimidylalkanecarboxylic acid (IV). With I and II or IIa (n = 0), 2 products were formed within 40 min., separated by EtOH giving 31% less soluble red 2,2'-diperimidyl (V) m. 350° (HCONMe2), and 59% more soluble green isomer of V, C22H14O4, m. 221° (EtOH); picrate, m. 225° (sublimation). The following green III were prepared from I and IIa crystallized from EtOH (n, reaction time in min., % yield, m.p., and m.p. of picrate given): 1, 10, 22, 350° ,250° (decomposition); 2, 120, 14, 326° (decomposition), 280° (decomposition). The following yellow-green IV, crystallized from EtOH, were formed from I and II by heating at about 180-90° (much of I being recovered) [n, reaction time, % yield, m.p. (decomposition), and m.p. (decomposition) of the picrate given]: 2, 15, 65, 238° ,250° ;3, 20, 30, 268° ,250° ;4, 20, 32, 255° ,250° ;5, 25, 9, 231° ,250° ;6, 25, 12, 223° ,250° ;7, 25, 27, 222° ,205° ;8, 20, 43, 230° ,137° . I heated 3 hrs. at 240-310° with enanthic acid gave after heating with dilute HCl 11% hexylperimidine HCl, C17H21ClN2, yellow, m. 258° (decomposition) (H2O), picrate, m. 151°. I and capric acid boiled 10 hrs. with 18% HCl gave 8% nonylperimidine-HCl, greenish yellow, m. 250° (decomposition) (H2O). 2-H2NC6H4SH and (CH2)3(CO2H)2 heated 1 hr. under CO2 gave 30% 4-(2-benzothiazolyl)butyric acid, m. 143° (EtOH-Me2CO). Previously described 1,ω-di(2-sbenzimidazolyl)alkanes were prepared by condensing 2 mole 1,2-C6H4(NH2)2 (VI) with the appropriate II at about 190°. In the case of 1,2-di-2-(benzimidazolyl)ethane (VII), 2 forms were obtained: rapid heating yielded VII, m. 360° ; slow heating gave VII, m. 293°. Although 2,2'-dibenzimidazolyl and the methane analog of VII could not be prepared by the above method, they could be formed by heating 0.2 mole VI with 0.1 mole (CONH2)2 or CH2(CONH2)2 at 250-85° and 200-230° ,resp.; NH3 was lost in these reactions. The various dibenzimidazolylalkanes (0.02 mole) in 150 cc. EtOH with 2 g. Raney Ni were hydrogenated by heating 6 hrs. at 110-20 atmospheric initial H pressure, at 220-30° ,with stirring. The filtered colorless solns. treated with C, evaporated to a few cc., and cooled to 0° gave the following compds. which were either hexa-or octa-hydrodibenzimidazolylalkanes (n of the alkane group, % yield, m.p., and m.p. of the picrates given): 2, 60, 330° ,292° ;3, 90, 265° ,229° ;4, 70, 285° ,215° ;5, 63, 180° ,194° ;6, 61, 310° ,238° ;7, 50, 258° ,176° ;8, 71, 223° ,203°. HCl solns. of the various dibenzimidazolylalkanes were treated with concentrated NaNO2 and cooled giving 80-90% of the following N,N'-dinitroso derivs., all of which retained 5 moles H2O [n, and m.p. (decomposition) given]: 2, 210° ;3, 196° ;4, 206° ;5, 175° ;6, 205° ;7, 168° ;8, 200°. Similarly formed were the following N,N'-dinitroso derivs. of the hydrogenated dibenzimidazolylalkanes containing 5 moles H2O [n and m.p. (decomposition) given]: 3, 193° ;4, 185° ; 5, 181° ;6, 165°. All N-mononitroso derivs. formed from benzimidazole or the alkyl benzimidazoles were unstable and could not be recrystd.; in the following N-nitroso-2-alkylbenzimidazoles, the alkyl group, moles H2O, m.p., and m.p. of the picrate of the 2-alkyl benzimidazole are given: none, 2, 155° -; Me, 2.5, 195° (decomposition), 210° (with sintering); Et, 3.0, 165° ,

L11 ANSWER 184 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
122.5° ,Pr, 1.5, 162° (decompn.), 143° ,Bu, 2.0,
90° ,95° ,C5H11, 2.0, 102° ,139° ,C6H13, 2.0,
114° 141.5° ,C7H15, 2.0, 73° ,165° ,C8H17,
3.0, 54° ,-, C9H19, -, about 20° ,- M.p. diagrams are
given for the hydrogenated dibenzimidazolylalkanes and their picrates, for
the 2-alkyl benzimidazole picrates and the N-nitroso derivs. of the alkyl
benzimidazoles, and for the N,N'-dinitrosodibenzimidazolylalkanes, showing
the effects of the no. of C atoms in the alkane group on the m.p.

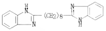
IT 114036-33-8 122214-89-5 124134-91-4
(Derived from data in the 6th Collective Formula Index (1957-1961))

RN 114036-33-8 CAPLUS

CN Benzimidazole, 2,2'-octamethylenebis-, hexahydro deriv. (6CI) (CA INDEX NAME)

CM 1

CRN 5233-14-7
CMF C22 H26 N4

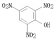


RN 122214-89-5 CAPLUS

CN Benzimidazole, 2,2'-octamethylenebis-, hexahydro deriv., picrate (6CI) (CA INDEX NAME)

CM 1

CRN 88-89-1
CMF C6 H3 N3 O7



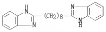
CM 2

CRN 114036-33-8
CMF C22 H32 N4
CCI IDS

CM 3

CRN 5233-14-7
CMF C22 H26 N4

L11 ANSWER 184 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

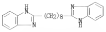


RN 124134-91-4 CAPLUS

CN Benzimidazole, 2,2'-octamethylenebis-, octahydro deriv. (6CI) (CA INDEX NAME)

CM 1

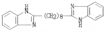
CRN 5233-14-7
CMF C22 H26 N4



IT 5233-14-7, Benzimidazole, 2,2'-octamethylenebis-
(hexahydro and octahydro derivs.)

RN 5233-14-7 CAPLUS

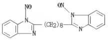
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)



IT 102810-78-6P, Benzimidazole, 2,2'-octamethylenebis[1-nitroso-
RL: PREP (Preparation)
(preparation of)

RN 102810-78-6 CAPLUS

CN Benzimidazole, 2,2'-octamethylenebis[1-nitroso- (6CI) (CA INDEX NAME)



L11 ANSWER 185 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1959:7078 CAPLUS

DN 53:7078

OREF 53:1355d-f

TI Phenazinecarboxylic acids

AU Hopff, H.; Ziegler, Ch.

CS ETH, Zurich, Switz.

SO Chimia (1958), 12, 112-13
CODEN: CHIMAD; ISSN: 0009-4293

DT Journal

LA German

AB Phenazine-2-carboxylic acid (I) was prepared (50% yield) by condensing o-nitrochlorobenzene with p-toluidine, then heating the product, o-nitro-4'-methyldiphenylamine, with Fe oxalate and Pb to 270° to yield 2-methylphenazine (II). Oxidation of II with chromic acid in H2SO4 gave I. Phenazine-1,5-dicarboxylic acid was prepared (6% yield) by condensation of anthranilic acid and o-nitrobenzoic acid. Phenazine-2,6-dicarboxylic acid was prepared (60% yield) from Me p-nitrosobenzoate with H2SO4, reduction of the product, phenazine-2,6-dicarboxylic acid N-oxide, with ZnCl2 and HCl, and oxidation with dilute HNO3. The phenazinecarboxylic acids were converted to the corresponding acid chlorides and condensed with various aminoanthraquinones to acylaminoanthraquinones. A general description of the dye properties is given.

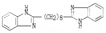
IT 114036-33-8 122214-89-5 124134-91-4
(Derived from data in the 6th Collective Formula Index (1957-1961))

RN 114036-33-8 CAPLUS

CN Benzimidazole, 2,2'-octamethylenebis-, hexahydro deriv. (6CI) (CA INDEX NAME)

CM 1

CRN 5233-14-7
CMF C22 H26 N4

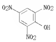


RN 122214-89-5 CAPLUS

CN Benzimidazole, 2,2'-octamethylenebis-, hexahydro deriv., picrate (6CI) (CA INDEX NAME)

CM 1

CRN 88-89-1
CMF C6 H3 N3 O7



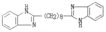
CM 2

CRN 114036-33-8

L11 ANSWER 185 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
CMF C22 H32 N4
CCI IDS

CM 3

CRN 5233-14-7
CMF C22 H26 N4

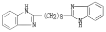


RN 124134-91-4 CAPLUS

CN Benzimidazole, 2,2'-octamethylenebis-, octahydro deriv. (6CI) (CA INDEX NAME)

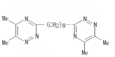
CM 1

CRN 5233-14-7
CMF C22 H26 N4

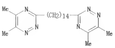


L11 ANSWER 186 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1958:104369 CAPLUS
DN 52:104369
OREF 52:18464c-i
TI 1,2,4-Triazines. VI. Triazine syntheses with dicarboxylic acids
AU Metze, Reinhold; Kort, Walter
CS Humboldt Univ., Berlin
SO Chemische Berichte (1958), 91, 417-22
CODEN: CHBEAM; ISSN: 0009-2940
DT Journal
LA Unavailable
OS CASREACT 52:104369
AB cf. C.A. 51, 15532c. Dihydrazides of dicarboxylic acids with diketones and NH3 give 1,2,4-triazinyl compds., e.g. tetradecanedicarboxylic acid 1,14-dihydrazide in alc. solution with excess AcCOMe in aqueous solution gives the tetradecanedicarboxylic acid 1,14-bis(3-oxo-2-butylidenehydrazide), m. 93-6°, which is heated 7 hrs. in a sealed tube at 135° with 4 equivs. NH3 to give a 48% yield of 1,14-bis(5,6-dimethyl-1,2,4-triazin-3-yl)tetradecane, m. 76°. Oxalic acid dihydrazide with AcCOMe gives a 72% yield of oxalic acid bis(3-oxo-2-butylidenehydrazide), m. 214° (decomposition). Malonic acid dihydrazide with AcCOMe gives a 64% yield of malonic acid bis(3-oxo-2-butylidenehydrazide), m. 187°. Methylmalonic acid dihydrazide gives an 89% yield of methylmalonic acid bis(3-oxo-2-butylidenehydrazide), m. 192°. Dimethylmalonic acid dihydrazide gives a 68% yield of dimethylmalonic acid bis(3-oxo-2-butylidenehydrazide), m. 275° (decomposition). Succinic acid dihydrazide with AcCOMe gives an 82% yield of succinic acid bis(3-oxo-2-butylidenehydrazide), m. 243°, which at 160° with alc. NH3 gives 1,2-bis(5,6-dimethyl-1,2,4-triazin-3-yl)ethane, m. 149°, in 55% yield. Glutaric acid dihydrazide with AcCOMe gives a 91% yield of glutaric acid bis(3-oxo-2-butylidenehydrazide), m. 189°, which at 160° with alc. NH3 gives 1,3-bis(5,6-dimethyl-1,2,4-triazin-3-yl)propane, m. 78°, in 52% yield. Adipic acid dihydrazide with AcCOMe gives an 81% yield of adipic acid bis(3-oxo-2-butylidenehydrazide), m. 174°, which at 150° with alc. NH3 gives 1,4-bis(5,6-dimethyl-1,2,4-triazin-3-yl), m. 65°, in 59% yield. Pimelic acid dihydrazide with AcCOMe gives a 75% yield of pimelic acid bis(3-oxo-2-butylidenehydrazide), m. 181°, which at 165° with alc. NH3 gives 1,5-bis(5,6-dimethyl-1,2,4-triazin-3-yl)pentane, m. 62°, in 54% yield. Sebacic acid hydrazide with AcCOMe gives a 79% yield of sebacic acid bis(3-oxo-2-butylidenehydrazide), m. 173°, which at 165° with alc. NH3 gives 1,8-bis(5,6-dimethyl-1,2,4-triazin-3-yl)octane, m. 61°, in 72% yield. Isophthalic acid dihydrazide with AcCOMe gives a 92% yield of isophthalic acid bis(3-oxo-2-butylidenehydrazide), m. 228° (decomposition), which at 150° with alc. NH3 gives 1,3-bis(5,6-dimethyl-1,2,4-triazin-3-yl)benzene, m. 205° in 48% yield. α,α-Lutidine-β,β'-dicarboxylic acid dihydrazide with AcCOMe gives an 81% yield of α,α'-Lutidine-β,β'-dicarboxylic acid bis(3-oxo-2-butylidenehydrazide), m. 240-4° (decomposition), which at 170° with alc. NH3 gives 2,6-dimethyl-3,5-bis(5,6-dimethyl-1,2,4-triazin-3-yl)pyridine, m. 189°, in 27% yield. Tetradecanedicarboxylic acid 1,14-dihydrazide is prepared by heating 5 g. N2H4.H2O with 10 cc. EtOH and 11 g. di-Et ester 12 hrs. on a H2O bath, filtering off the precipitated hydrazide, and heating the filtrate repeatedly with repeated filtration. The crude product is boiled with CHCl3 to yield 2.9 g. pure dihydrazide, m. 184°.
IT 113951-74-9P, as-Triazine, 3,3'-octamethylenebis[5,6-dimethyl-
124403-58-3P, as-Triazine, 3,3'-tetradecamethylenebis[5,6-dimethyl-
RL: PREP (Preparation)
(preparation of)

L11 ANSWER 186 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
RN 113951-74-9 CAPLUS
CN as-Triazine, 3,3'-octamethylenebis[5,6-dimethyl- (6CI) (CA INDEX NAME)

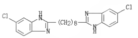


RN 124403-58-3 CAPLUS
CN as-Triazine, 3,3'-tetradecamethylenebis[5,6-dimethyl- (6CI) (CA INDEX NAME)

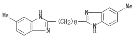


L11 ANSWER 187 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1958:29956 CAPLUS
DN 52:29956
OREF 52:5387f-i,5388a-c
TI Synthesis of bisbenzimidazoles
AU Wang, Lillian Li-Yen; Joullie, Madeleine M.
CS Univ. of Pennsylvania, Philadelphia
SO Journal of the American Chemical Society (1957), 79(21), 5706-8
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA Unavailable
AB cf. C.A. 52, 4604h. 3,4-(H2N)2C6H3Me (6.10 g.) mixed with 2.98 g. (CH2CO2H)2 and poured at 100° into 30 cc. polyphosphoric acid, heated 3 hrs. with stirring at 150°, cooled, diluted with H2O, allowed to stand overnight, and filtered, and the residue extracted with hot dilute NH4OH, dried, and recrystd. from aqueous EtOH yielded 30% 1,2-bis(6-methyl-2-benzimidazolyl)ethane (I), m. 265-8°; method A. 3,4-(H2N)2C6H3NO2 (7.65 g.) and 3.05 g. (CH2CO2H)2 refluxed 10 hrs. in 50 cc. 4N HCl, cooled, and filtered, and the residue washed with hot dilute NH4OH and H2O and recrystd. with C from (CH2OH)2 (or from aqueous EtOH in all other cases) yielded 31% 6-NO2 analog of I, m. 290-3°; method B. 3,4-H2N(O2N)C6H3OEt (9.1 g.) in 50 cc. 4N HCl hydrogenated over 1 g. 5% Pd-Al2O3, filtered, treated with 2.5 g. succinic anhydride and 2 cc. concentrated H2SO4, and worked up by method B gave 42% 6-EtO analog of I, m. 225-8°. 5,3,1,2-Cl(O2N)C6H2(NH2)2 (II) gave by the same method 35% 1,2-bis(7-amino-5-chloro-2-benzimidazolyl)ethane, m. 256-8° (liberated from the salt with hot aqueous NaHCO3). II yielded by methods A and B 45% (7-nitro-5-chloro-2-benzimidazolyl)-3-propionic acid, m. 240-2° (aqueous EtOH). In the same manner were prepared by method B the following 1,2-bis(substituted-2-benzimidazolyl)butanes (substituent, % yield, and m.p. given): 6-Me, 45, 235-6°; 6-NO2 (III), 35, 267-9°; 6-Cl, 29, 276-8°; 7-nitro-5-chloro (IV), 25, 288-90° (decomposition) (CH2OH)2] (5 hrs. at 130°). III (3.8 g.) in 20 cc. 4N HCl hydrogenated over 0.5 g. 5% Pd-Al2O3, diluted with 50 cc. 4N HCl, warmed, filtered, and cooled, and the deposit recrystd. from 4N HCl and processed further by method B yielded 38% 6-NH2 analog of III, m. 175-225° (decomposition); di-HCl salt, 65% yield, m. 292-6°. II reduced in 4N HCl over Pd-Al2O3 in the usual manner, filtered, and refluxed 10 hrs. with adipic acid yielded 25% 7-NH2 analog of IV, m. 247-50° (decomposition). By method A was prepared the 6-Cl analog of I, m. 270-3°, in 36% yield. From suberic acid were prepared the following 1,2-bis(substituted-2-benzimidazolyl)hexanes (substituent, % yield, method, and m.p. given): 6-Me, 28, A, 221-2°; 6-NO2, 30, B, 243-5°; 6-Cl, 33, B, 204-7°; 7-nitro-5-chloro, 10, A, 282°. The following octane analogs: 6-Me, 40, A, 226-8°; 6-Cl (with 1 cc. concentrated H2SO4 added to the mixture), 40, A, 208-10°. From tartaric acid and the appropriate o-phenylenediamines were prepared the following 1,2-bis(substituted-2-benzimidazolyl)-1,2-ethanediols by method B (substituent, % yield, and m.p. given): H, 44, 245°; 6-Me, 42, 218-21°; 6-EtO, 35, 222-5°; 6-Cl, 39, 218°; 6-NO2, 30, 250-5°. 3,3'-Thiodipropionic acid and o-C6H4(NH2)2 yielded in the usual manner by method B 33% 2,2'-(thiodiethylene)dibenzimidazole, m. 200°. 3,4-(H2N)2C6H3Cl and phthalic anhydride yielded by method A 20% 2,2'-o-phenylenebis(6-chlorobenzimidazole), m. 365° (HCONMe2). 2-Aminobenzimidazole (13.3 g.) refluxed 50 hrs. with 40 cc. CS2 and 30 cc. absolute EtOH and the product isolated gave 40% Et N-benzimidazolylthiocarbamate, m. 202°.
IT 13014-98-7
(Derived from data in the 6th Collective Formula Index (1957-1961))
RN 13014-98-7 CAPLUS
CN Benzimidazole, 2,2'-octamethylenebis[5-chloro- (8CI) (CA INDEX NAME)

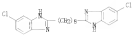
L11 ANSWER 187 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



IT 37134-95-5P, Benzimidazole, 2,2'-octamethylenebis[5(or 6)-methyl-
RL: PREP (Preparation)
(preparation of)
RN 37134-95-5 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis[5-methyl- (9CI) (CA INDEX NAME)

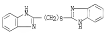


L11 ANSWER 188 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1958:29955 CAPLUS
DN 52:29955
OREF 52:5387e-f
TI Preparation of 1-(2-chloro-5-sulfophenyl)-3-methyl-5-pyrazolone from the amide of acetoacetic acid
AU Levin, P. A.
SO Zhurnal Obshchei Khimii (1956), 26, 2543-4
CODEN: ZOKHA4; ISSN: 0044-460X
DT Journal
LA English
AB See C.A. 51, 5055g.
IT 13014-98-7
(Derived from data in the 6th Collective Formula Index (1957-1961))
RN 13014-98-7 CAPLUS
CN Benzimidazole, 2,2'-octamethylenebis[5-chloro- (8CI) (CA INDEX NAME)



L11 ANSWER 189 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1957:81406 CAPLUS
DN 51:81406
OREF 51:14695e-i,14696a-e
TI Some new benzimidazole derivatives
AU Thomas, P. R.; Tyler, G. J.
CS Brit. Nylon Spinners, Ltd., Monmouthshire, UK
SO Journal of the Chemical Society (1957) 2197-202
CODEN: JCSOA9; ISSN: 0368-1769
DT Journal
LA Unavailable
OS CASREACT 51:81406
AB A synthesis of benzimidazoles (I) from imidoate hydrochlorides (II) and o-C6H4(NH2)2 described by King and Acheson (C.A. 44, 613g) was of value for the preparation of the 2-aryl derivs. of I. For 2-alkyl derivs. of I it was not so useful when the o-diamine possesses an electrophilic substituent in the 4-position. II were prepared by passing HCl into a mixture of nitrile, absolute alc., and sometimes C6H6 at 0-5° until the theoretical amount had been absorbed. After 1-3 days II had solidified and was collected, washed with Et2O, and dried. The following II were thus prepared (g. of nitrile, cc. alc., cc. C6H6, formula [X = C(OEt):N2Cl], and % yield given): 250, 150, -, PhX, 90; 30, 16, -, p-C6H4MeX, 90; 132, 42, 400, p-MeO2CC6H4X, 82; 36.6, 13, 215, HO2C(CH2)8X, 52; 54, 70, 300, X(CH2)4X, 64; 37.6, 26, 200, X(CH2)8X, 68. Approximately equal quantities of II and aromatic o-diamine in MeOH refluxed 1 hr. and the product recrystd. gave I. The following I were prepared by this method (diamine in g., II in g., cc. MeOH, substituents at 2 and 5 in I, % yield, m.p., and solvent for crystallization given): 180, 280, 1000, Ph, H, 85, 295°, MeOH; 22.7, 42, 115, p-C6H4Me, Me (IIa), 81, 195°, C6H6; 25, 38.6, 500, C6H4CO2Me, CO2Me, 92, 237°, dioxane; 10.5, 16.9, 100, (CH2)8CO2H, CO2Me, 23, 142-4°, aqueous MeOH; 5.6, 9.84, 50, (CH2)8CO2H, NO2 (IIb), 19, 104-7°, aqueous Me2CO. Two bisimidazoles were similarly prepared (diamine in g., II in g., MeOH in cc., group connecting the two nuclei, % yield, m.p., and solvent given): 5.0, 6.3, 40, (CH2)4, 52, 259°, aqueous alc.; 21.6, 32.9, 150, (CH2)8, 50, 270°, aqueous alc. IIa was prepared by two routes. 3,4-Diaminotoluene (54 g.) and 59.6 g. p-toluic acid heated 2 hrs. at 180°, then refluxed with 500 cc. 10% HCl and the insol. product refluxed with 5% NaOH gave 50% IIa. 3,4-Diaminotoluene di-HCl salt (40 g.) and 22 g. p-tolyinitrile heated 3 hrs. at 180° and the product extracted continuously for 4 hrs. with Et2O and refluxed with 5% NaOH gave the same material. IIa formed a picrate, needles, m. 278-80° (decomposition); HCl salt, m. 290° (decomposition), readily hydrolyzed. Me 3,4-diaminobenzoate (IIc) (50 g.) and 85.9 g. Et ω-carboxynonanimidoate-HCl gave a product which hydrolyzed by refluxing 5 hrs. with 10% NaOH gave 31 g. 5-carboxy-2-(ω-carboxyoctyl)benzimidazole (III), m. 223-5°. Esterification of I (2-(CH2)8CO2H, 5-NO2) with 5% MeOH-HCl gave the Me ester (IIIa), needles, m. 124-5°. I [2-C6H4CO2Me, 5-CO2Me] (18 g.) refluxed 3 hrs. with 4 g. NaOH in 250 cc. alc. gave a quant. yield of 2-p-carboxyphenylbenzimidazole-5-carboxylic acid (IV), not m. below 350°. IV (5 g.) in 2.2 g. hexamethylenediamine and H2O gave 5.2 g. of the salt, m. 260-2°; decamethylenediammonium salt (70% yield), m. 213-16°. IIb (57 g.) dissolved in 400 cc. dilute NaOH and treated with 3 portions of 72 g. Na2S2O4, when the reaction had subsided a further solution of 30 g. NaOH in 120 cc. H2O and 72 g. Na2S2O4 added, and the solution refluxed until colorless gave 30 g. 5-amino-2(ω-carboxyoctyl)benzimidazole (V), m. 140-3° (from aqueous alc.). V.2H2O (21.7 g.) refluxed 4 hrs. with 250 cc. 6% MeOH-HCl gave the ester dihydrochloride which with warm Na2CO3 gave 17.9 g. 5-amino-2-(ω-methoxy-carbonyloctyl)benzimidazole (VI), plates, m. 97-8° (from C6H6). IIIa (10 g.) hydrogenated in 200 cc. EtOAc with 2 g. 10% Pd-C at

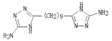
L11 ANSWER 189 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
atm. pressure gave 8 g. VI. 4-Nitro-o-phenylenediamine (100 g.) and 536 g. sebacic acid (VII) refluxed 24 hrs. in 3 l. 4N HCl gave 78 g. IIb.H2O, m. 105-8° (from aq. Me2CO). IIc (50 g.) and 240 g. VII refluxed 20 hrs. with 4N HCl gave the HCl salt of 5-carboxy-2-(ω-carboxyoctyl)benzimidazole (VIII). This in NaOH soln. treated with AcOH gave 36 g. free VIII, m. 223-5° (from aq. AcOH). o-C6H4(NH2)2 (16.2 g.) and 87.6 g. adipic acid refluxed 21 hrs. with 4N HCl and the solid refluxed 8 hrs. with 200 cc. 3% MeOH-HCl gave 16.1 g. 2-(ω-methoxycarbonylbutyl)benzimidazole, needles, m. 141°. o-Phenylenediamine (10.8 g.) and 40.4 g. VII refluxed 4 hrs. in 4N HCl gave 8.5 g. 2-(ω-carboxyoctyl)benzimidazole-HCl (IX), needles, m. 168-70°. IX (3.1 g.) in aq. alkali gave 2.4 g. free 2-(ω-carboxyoctyl)benzimidazole, needles, m. 117-18°. 4-Acetamido-3-nitrotoluene (400 g.) and 400 g. MgSO4 in 750 cc. H2O heated to the b.p., then 1 kg. KMnO4 in H2O added during 4 hrs. gave 35 g. unchanged starting material and 276 g. 4-acetamido-3-nitrobenzoic acid (X), m. 285-6°. X refluxed 1 hr. with 5% HCl gave a quant. yield of 4-amino-3-nitrobenzoic acid, m. 284-8°, Me ester (XI), 196-8°. XI (20 g.) hydrogenated in EtOAc over Pt-C at atm. pressure gave a quant. yield of Me 3,4-diaminobenzoate, m. 108-9°.
IT 5233-14-7P, Benzimidazole, 2,2'-octamethylenebis-
RL: PREP (Preparation)
(preparation of)
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)



L11 ANSWER 190 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1957:2059 CAPLUS
DN 51:2059
OREF 51:489h-i
TI Bis(aminotriazolyl) hydrocarbons
IN Shreve, Randolph N.; Charlesworth, Robert K.
PA Purdue Research Foundation
DT Patent
LA Unavailable
FAN.CNT 1

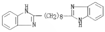
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2744116		19560501	US 1953-396344	19531204 <--

AB Adipic acid (13.5 g.) and 20.3 g. H2NNHC(:NH)NH2.HCl (I) in water were boiled 1 hr. and evaporated to dryness on the steam bath. The residue was recrystd. twice from dilute EtOH, giving [CH2CH2CONHNHC(:NH)NH2.HCl]2 (II), m. 216-18°. II (25 g.) and 15.5 g. anhydrous K2CO3 in water were evaporated to dryness on the steam bath. The residue, twice recrystd. from hot water, gave R2(CH2)n (R = 5-amino-1H-1,2,4-triazol-3-yl) (III), m. 278-80°. From I and other dibasic acids similar compds. were prepared. Oxalic acid produced 5,5'-diamino-3,3'-bi(1,2,4-triazole), m. above 350°. The following III were prepared (n, % yield, and m.p. given): 1, 34, 293°; 2, 40, 310-12°; 3, 20, 243-4°; 7, 50, 217-19°; 5, 43, 224-70; 6, 57, 270-3°; 8, 49, 238-41°; (CH2)n = CH:CH, 25, above 350°.
IT 26092-44-4P, s-Triazole, 3,3'-octamethylenebis[5-amino-
RL: PREP (Preparation)
(preparation of)
RN 26092-44-4 CAPLUS
CN 1H-1,2,4-Triazol-3-amine, 5,5'-(1,8-octanediyl)bis- (9CI) (CA INDEX NAME)



L11 ANSWER 191 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1957:1770 CAPLUS
DN 51:1770
OREF 51:377d-i
TI Paraffins with two heterocyclic substituents in positions α and ω
AU Ried, Walter; Patschorke, Joachim
CS Univ. Frankfort/Main, Germany
SO Justus Liebigs Annalen der Chemie (1956), 599, 44-50
CODEN: JLACBF; ISSN: 0075-4617
DT Journal
LA Unavailable
GI For diagram(s), see printed CA Issue.
AB The general reaction leading to the disubstituted compds. was 2 moles 1,2-(HX)(H2N)C6H4 (I) + 1 mole RO2C(CH2)nCO2R (II) → X C6H4 N C(CH2)nC N C6H4 X (III). Usually, I and II were refluxed 1-6 hrs. without solvent. In the following I only X is given; in II only R and n are given; and in III (in which X is that of I), n, % yield, and m.p., techniques of isolation, and derivs., are given. The following were prepared from I (X = NH). From II (Et, 2) was prepared the following III: 2, 42,415° (decomposition), isolated through the colorless HCl salt by addition of NH4OH, showing halochromism with strong acids [picrate, m. 290° ,H2PtCl6 salt, yellow, and HgCl2 compound, colorless (neither of which have m.ps.), AgNO3 compound, colorless, decomposing without melting], from II (Me, 3), 3, 62,265° (decomposition) (from EtOH) (picrate, m. 247°),from II (Et, 4), 4, 41, 267° (decomposition) (from EtOH) (picrate, m. 255°);from II (Et, 5), 5, 33,229° (decomposition) (from Me2CO by addition of cyclohexane) (picrate, m. 194°),from II (Me, 6), 6, 30, 280° (from Me2CO) (picrate, m. 209°);from II (Et, 7), 7, 21,270° (decomposition) (from EtOH) (picrate, m. 175°),from II (H, 8), 8, 30, 312° (from EtOH by addition of H2O) (picrate, m. 200°). In the above III series, with increasing n, the compds. become increasingly soluble in organic solvents. (2-HOC6H4NHCO)2 (2.5 g.) heated 1 hr. at 250° gave a very small amount of (probable) dibenzoxazole, m. 216° (decomposition) (not analyzed). I (X = O) (0.05 mole) and 0.025 mole CH2(CO2Et)2 in 10 cc. cyclohexanol (or 5 cc. pyridine) refluxed 6 hrs. gave 38-9% (2-HOC6H4NHCO)2CH2 (IV), m. 231-2° ,obtained in 94% yield by heating the reactants 3 hrs. without solvent. IV heated 1 hr. at 250° gave III (X = O, n = 1), m. 116° (from aqueous EtOH). The following were prepared from I (X = O). From II (Et, 2) was formed the following III: 2, 30, 193.5° ;from II (Et, 3), 3, 25, 88° ,from II (Et, 4), 4, 19, 133° ;from II (Et, 5), 5, 11, 54° ;from II (Me, 6), 6, 27, 106.5° ;from II (Et, 7), 7, 10, 105.5° ,from II (H, 8, at 220°),8, 33, 112.5°. From I (X = S) were formed the following III (X = S): with (CO2Et)2, 0, 20, 301° ,with CH2(CO2Et)2, 1, 19, 240° . Changes in m.p. with changes in n are discussed both for III and their respective picrates.
IT 5233-14-7P, Benzimidazole, 2,2'-octamethylenebis-
856636-61-8P, Benzimidazole, 2,2'-octamethylenebis-, picrate
RL: PREP (Preparation)
(preparation of)
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)

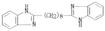
L11 ANSWER 191 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 856636-61-8 CAPLUS
CN Benzimidazole, 2,2'-octamethylenebis-, picrate (6CI) (CA INDEX NAME)

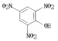
CM 1

CRN 5233-14-7
CMF C22 H26 N4



CM 2

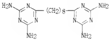
CRN 88-89-1
CMF C6 H3 N3 O7



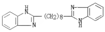
L11 ANSWER 192 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1955:46456 CAPLUS
DN 49:46456
OREF 49:9046g-i,9047a-b
TI Guanamines
IN Simons, John K.
PA Allied Chemical & Dye Corp.
DT Patent
LA Unavailable
FAN.CNT 1

PATENT NO	KIND	DATE	APPLICATION NO	DATE	
PI US 2684366		19540720	US		<--

AB A nitrile and a cyanoguanidine (I) were treated in the presence of a strong base, and a primary or secondary alc. at 100-210° to give an extremely good yield (up to 93%) of a monoguanamine at low cost and in an easily controlled reaction. Diguanamines cannot be prepared under these conditions. Thus, when I 504 and PhCN 500 were added to 85% aqueous KOH 50 and MeOCH2CH2OH 1000 cc., and the mixture heated to 110° , a spontaneous reaction occurred; when this boiling ceased, the mixture was refluxed 5 hrs., cooled, the precipitate filtered, washed with hot H2O, and dried to give 82% 2,4-diimino-6-phenyl-1,2,3,4-tetrahydro-s-triazine (II), m. 228°. Evaporation of the alc. filtrate yielded sufficient product to raise the yield of 93%. Other 6-substituted II were prepared from the following nitriles (nitrile, m.p. of product, % yield given): adiponitrile, 295° ,85; phthalonitrile, 345-50° ,32; terephthalonitrile, 382° ,68; 4,4'-dicyanobiphenyl, 390-2° , 86; 1,2-dicyanonaphthalene, 376-80° ,79; PhCH2CN, 245° ,-; (p-NCC6H4)2O, 290° ,49; (CH2CN)2, 340° ,quant.; CH2(CH2CN)2, 355° ,82; CH2(CH2CH2CN)2, 258° ,89; (CH2)8(CN)2, 271-3° ,77; (CH2)7(CN)2, 218-19° ,-; EtCN, 293-5° ,-; PrCN, 196° ,-; Ac(Me)C(CH2CH2CN)2, -, 65%; Ac[CH2:CMe]C(CH2CH2CN)2, 273-4° ,-; NCCH2-CH2SO3Na, above 410° ,-. Phenyl cyanoguanidine and adiponitrile gave 1,4-di(1-phenyl-2,4-diimino-1,2,3,4-tetrahydro-6-s triazine) butane, m. 232-5° ,quant. II and NC(Ph)C(CH2CH2CN)2 gave a tris-I in which the central triazine was the aromatic isomer. II and biscyanoethylfluorene gave 62% bis(4,6-diamino-2-triazinylethyl)fluorene. Cf. C.A. 37, 2016.1; 44, 10379a.
IT 4128-90-9P, s-Triazine, 2,2'-octamethylenebis[1,4,5,6-tetrahydro-4,6-diimino-
RL: PREP (Preparation)
(preparation of)
RN 4128-90-9 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,8-octanediyl)bis- (CA INDEX NAME)



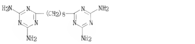
L11 ANSWER 193 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1954:68076 CAPLUS
DN 48:68076
OREF 48:12090d-f
TI Modified benzimidazole synthesis
AU Lane, E. S.
CS At. Energy Res. Establishment, Harwell, Berks, UK
SO Journal of the Chemical Society (1953) 2238-40
CODEN: JCSOA9; ISSN: 0368-1769
DT Journal
LA Unavailable
AB Aliphatic diamides with o-diamines or their salts produce bibenzimidazoles. (CONH2)2 (I), o-C6H4(NH2)2 (II), and (CH2OH)2 (III) refluxed 3 hrs., cooled, and poured into H2O yielded 2,2'-bibenzimidazole, m. 395-400° (decomposition), also obtained from (CONH4)2, II, and glycerol. Below are listed compds. obtained by this method [product, m.p., starting amide (or acid), amine, and solvent]: 5,5'-dimethyl-2,2'-bibenziminazole, 350° ,I, 3,4-(H2N)2C6H3Me (IV), III; 2,2'-methylenebibenzimidazole, 389° (decomposition) [di-HCl salt, m. 330-3° (decomposition)], CH2(CONH2)2 (V), II, III; 2,2'-methylenebis(5-methylbenzimidazole)-2HCl, m. 332° (decomposition), V, IV, III; 2,2'-tetramethylenebibenzimidazole, 265-7° , N,N'-bis(2-hydroxyethyl)adipamide, II, -; 2,2'-octamethylenebibenzimidazole, 275° ,N,N'-bis(2-hydroxyethyl)sebacamide, II, -; 2-phenylbenzimidazole, 294° , BzONH4, II, glycerol; 2-(2-hydroxyphenyl)benzimidazole, 241-2° (HCl salt, m. 254°),salicylamide, II.HCl, III; 2-(3-hydroxy-2-naphthyl)benzimidazole, 298-300° ,2,3-HOC10H6CO2H, II, HOCH2CH2NH2; N-(2-hydroxyethyl)-2-benzimidazolecarboxamide, 219-20° , (CONHCH2CH2OH)2 (VI), II, -; N-(2-hydroxyethyl)-5-methyl-2-benzimidazolecarboxamide, 216° ,VI, IV, -.
IT 5233-14-7P, Benzimidazole, 2,2'-octamethylenebis-
RL: PREP (Preparation)
(preparation of)
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)



L11 ANSWER 194 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1954 18490 CAPLUS
DN 48 18490
OREF 48 3399d-g
TI Polyguanamines
IN Vickers, Edward J
PA Imperial Chemical Industries Ltd
DT Patent
LA Unavailable
FAN CNT 1

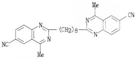
	PATENT NO	KIND	DATE	APPLICATION NO	DATE	
PI	GB 685840		19530114	GB		<--

AB Polyguanamines are prepared by heating a polynitrile with 2 or more moles dicyandiamide (I) (at least 40% of the latter being in the form of an alkali-metal salt) in the presence of a solvent E g I 10 5 and NC(CH2)4CN 5 4 are added to Na 2 3 in (CH2OH)2 40 parts, the mixture is heated with stirring to 100° ,when the temperature rises rapidly to 180-90° ,heating at 200° continued a few min , the mass cooled to 70-80° ,EtOH 40 parts added, the mixture cooled to room temperature, filtered, and the solid washed with EtOH, cold H2O, and hot H2O, and dried at 100° to give 76 2% adipoguanamine, m 300° (from H2O) Similarly prepared were 86.4% p-phenylenediacetoguanamine, m 310 5-11 5° ,from p-C6H4(CH2CN)2 (after recrystn. from AcOH and recovering the free base, it m 316°),sebacoguanamine, m 307° [from (CH2OH)2], prepared from NC(CH2)8CN, malonoguanamine, did not melt below 410° ,from CH2(CN)2; phthaloguanamine, m 359° [from (CH2OH)2], from o-C6H4CN)2, terephthaloguanamine m 405-6° Heating NCCPh(CH2CH2CN)2 11.15 with (CH2OH)2 80 and the Na salt 22 parts of I to 168° ,yields 75.8%, of a triguanamine, m 311° (320° after recrystn. from HCONMe2) Similarly, (NCCH2CH)3CCOMe 1,1,1-tris[2-(2,4-diamino-s-triazin-6-yl)ethyl]acetone, decompose 378° These compds. are useful as intermediates in the preparation of resins
IT 4128-90-9P, s-Triazine, 2,2'-octamethylenebis[4,6-diamino-
RL PREP (Preparation)
(preparation of)
RN 4128-90-9 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,8-octanediyl)bis- (CA INDEX NAME)

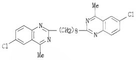


L11 ANSWER 195 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1953 6403 CAPLUS
DN 47 6403
OREF 47 1162i,1163a-d
TI Preparation of some α,ω-di-2-quinazolinylalkanes
AU Schofield, K , Swain, T , Theobald, R S
CS Washington Singer Labs , Exeter, UK
SO Journal of the Chemical Society (1952) 1924-6
CODEN JCSOA9, ISSN 0368-1769
DT Journal
LA Unavailable
AB (CH2CH2COCl)2 (I) (1 35 g acid) in 10 cc ether, added slowly to 5 g o-H2NC6H4Ac (II) in 10 cc ether and kept 12 h., gives 3 17 g N,N'-bis(o-acetylphenyl)adipodiamide (III), m 151-2° ,0 5 g III, 1 cc NH4OH (d 0 88), and 10 cc EtOH, heated 6 h at 140° ,give 0 4 g 1,4-bis(4-methyl-2-quinazolinyl)butane, m 116-17° . (CH2)8(COCl)2 (IV) (1 87 g acid) in 25 cc. ether, added to 5 g II in 25 cc ether, gives 1.7 g N,N'-bis(o-acetylphenyl)sebacodiamide (V), m 89-90° ;1 5 g V, 2 cc. concentrated NH4OH, and 10 cc EtOH, heated 6 h at 140° ,give 1.15 g. 1,8-bis(4-methyl-2-quinazolinyl)octane, pale yellow, m 101-2° I (0 22 g acid) in 10 cc ether, added to 1 g 5,2-Cl(H2N)C6H3Ac (VI) in 10 cc. ether, gives 0 62 g. N,N'-bis(2-acetyl-4-chlorophenyl)adipodiamide (VII), m 220-1° ,0.5 g VII gives 0 41 g 1,4-bis(6-chloro-4-methyl-2-quinazolinyl)butane, m 166-7° IV (1 49 g acid) and 5 g VI give 1 65 g N,N'-bis(2-acetyl-4-chlorophenyl)sebacodiamide (VIII), m. 137-8° ;1.5 g VIII yields 1.17 g 1,8-bis(6-chloro-4-methyl-2-quinazolinyl)butane, m 166-7° I (0 4 g acid) and 1 g. 2,5-H2N(O2N)C6H3Ac (IX) in 10 cc. C5H5N, refluxed 1 h , give 0 3 g N,N'-bis(2-acetyl-4-nitrophenyl)adipodiamide (X), m 287-8° ,0 5 g X in 5 g. molten AcONH4, heated 4 h. at 100° with dry NH3, gives 0 45 g. 1,4-bis(4-methyl-6-nitro-2-quinazolinyl)butane (XI), m. 219-20° ;the bomb-tube method gives 0.4 g XI and 1 1 g unchanged X from 1.5 g X. IV (1.4 g acid), 5 g. IX, and 40 cc PhMe, refluxed 1 h. give 2.5 g. N,N'-bis(2-acetyl-4-nitrophenyl)sebacodiamide, m 183-4° . I (from 0.34 g. acid) and 1.5 g. 2,5-H2N(NC)C6H3Ac (XII) in ether (12 h.) give 1.15 g. N,N'-bis(2-acetyl-4-cyanophenyl)adipodiamide (XIII), m 246-7° ;0 5 g XIII (sealed tube) gives 0.25 g. 1,4-bis(6-cyano-4-methyl-2-quinazolinyl)butane, buff, m 238-9° . IV (0.48 g. acid) and 1.5 g. XII in ether give 1 55 g N,N'-bis(2-acetyl-4-cyanophenyl)sebacodiamide (XIV), yellow, m 179-80° ;0.5 g. XIV, cyclized under pressure, gives 0 23 g. 1,8-bis(6-cyano-4-methyl-2-quinazolinyl)octane, m 197-8° o-HCONHC6H4Ac (8.9 g.) in 90 g. AcONH4, heated 3 h. at 155-60° while treated with NH3, gives 6 9 g. 4-methylquinazoline
IT 857759-67-2P, 6-Quinazolinecarbonitrile, 2,2'-octamethylenebis[4-methyl- 860192-25-2P, Quinazoline, 2,2'-octamethylenebis[6-chloro-4-methyl- 860192-62-7P, Quinazoline, 2,2'-octamethylenebis[4-methyl-
RL: PREP (Preparation)
(preparation of)
RN 857759-67-2 CAPLUS
CN 6-Quinazolinecarbonitrile, 2,2'-octamethylenebis[4-methyl- (5CI) (CA INDEX NAME)

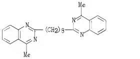
L11 ANSWER 195 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 860192-25-2 CAPLUS
CN Quinazoline, 2,2'-octamethylenebis[6-chloro-4-methyl- (5CI) (CA INDEX NAME)

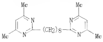


RN 860192-62-7 CAPLUS
CN Quinazoline, 2,2'-octamethylenebis[4-methyl- (5CI) (CA INDEX NAME)



L11 ANSWER 196 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1953:6376 CAPLUS
DN 47:6376
OREF 47:1145f-i,1146a-c
TI Some bisquaternary salts
AU Libman, D. D.; Pain, D. L.; Slack, R.
CS May & Baker Ltd., Dagenham, UK
SO Journal of the Chemical Society (1952) 2305-7
CODEN: JCSOA9; ISSN. 0368-1769
DT Journal
LA Unavailable
AB 4-Methylpiperidine (58 ml.) in 60 ml 98% HCHO, treated with 60 ml 40% aqueous HCHO, heated overnight at room temperature, treated with excess concentrated HCl, evaporated to a paste, and treated with excess 50% KOH, gives 1,4-dimethylpiperidine, b. 125° . (CH2)6Br2 (24 g.), 102 g morpholine, and 100 ml. C6H6, refluxed 16 hrs., poured into excess 2 N HCl, the aqueous layer extracted with C6H6, made strongly alkaline, and extracted with ether, give 52% 1,6-dimorpholinohexane, b11 190° ,m 41° , hexamethylenebis(1,4-carbethoxypiperazine), m 75° . (CH2)6(NH2)2 (11.6 g.), 28 g. K2CO3, and 100 ml. EtOH, treated dropwise (1 hr) at the b.p. with 43.2 g. (CH2)4Br2, boiled 6 hrs., the residue treated with 30% NaOH, and extracted with ether, give 12% 6-pyrrolidinohexylamine (I), b12 127-9° ,and 30% 1,6-dipyrrolidinohexane, b12 148-51° I (3.4 g) and 11.5 ml. MeI, added to 5.6 g. NaOH in 60 ml. MeOH and refluxed 4 hrs., give 30% 1-(6-dimethylaminohexyl)pyrrolidine-2MeI, m 199° . Suberodiamidine-2HCl (5 26 g.), 6 ml piperidine, and 8 ml Ac2CH2 in 60 ml. C5H5N, refluxed 3 hrs., give 70% hexamethylenebis(4,6-dimethyl-2-pyrimidine), with 1.5 mols. H2O, m. 81° , octamethylenebis(4,6-dimethyl-2-pyrimidine), b0 2 172° The polymethylenebispyrimidines were treated with MeI in EtOH at 100° , in other cases an excess of tertiary base was heated at 100° (sealed tube) with a polymethylene dihalide in EtOH or Me2CO The following X[A(CH2)nA]X were prepared (A, n, and X given) 2-(1,4,6-trimethylpyrimidyl), 6, iodide, m 240° (decomposition), 8, iodide, m. 243° (decomposition), 10, iodide, m. 198° (decomposition), 1,4-dimethylimidazolidino, 4, picrate, m. 187° ; 5, picrate, m 149° , 6, Br, m 227° ; 1-ethyl-2-methylbenzimidazolino, 4, Br, m 312° , 6, Br, m 298° ;1-methylbenzotriazolino, 3, Br, m 194-5° ,4, Br, m 231° (decomposition); 5, Br, m 213° (decomposition), 6, Br, m. 228° (decomposition), 10, iodide, m 170° (decomposition); 2-methylbenzotriazolino, 5, picrate, m 154° ,thiazolino, 6, Br, m 226° ,benzothiazolino, 6, Br, m 232° ,1-methylpiperidino, 1, iodide, m. 338° (decomposition), 2, iodide, m 275° ,3, iodide, m 266° ,4, iodide, m 265° ,5, Br, m 270° ,6, Br, m 255° (decomposition); 7, iodide, m 235° ,1-ethylpiperidino, 3, Br, m 282° ,10, Br, m 238° ,1,2-dimethylpiperidino, 5, iodide, m. 290° ,6, Br, m 265° ,1,3-dimethylpiperidino, 5, iodide, m 256° ,6, iodide, m 245° ,1,4-dimethylpiperidino, 5, iodide, m 245° , 6, iodide, m 255° ,1-methylpyrrolidino, 3, iodide, m 286° (decompn), 4, iodide, m 276° ,5, iodide, m 292° ,6, iodide, m 179° ,6, Br, m 232° ,6, tartrate, m 196° ,12, iodide, m 188° ,14, iodide, m 150° , 1-ethylpyrrolidino, 6, Br, m 287° ,4-methylmorpholino, 4, Br, m 250° ,5, Br, m 240° ,6, iodide, m 217° ,7, iodide, m 204° ,7, Br, m 236° ,9, iodide, m 197° ,12, iodide, m 173° ,4-ethylmorpholino, 6, iodide, m 249° (decomposition), 4-carbethoxy-1-methylpiperazino, 6, iodide, m 213° (decomposition), 1-methylpiperazino, 6, iodide-2HCl, m 200° Several of the compds were considerably more active in paralyzing transmission in autonomic ganglia than salts, the compds from unsatd heterocyclic compds were less active than those from simple saturated analogs
IT 859065-51-3P, Pyrimidine, 2,2'-octamethylenebis[4,6-dimethyl-
RL PREP (Preparation)

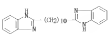
L11 ANSWER 196 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
(prepn. of)
RN 859065-51-3 CAPLUS
CN INDEX NAME NOT YET ASSIGNED



L11 ANSWER 197 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1953:6359 CAPLUS
DN 47:6359
OREF 47:1132f-i,1133a-i,1134a-g
TI Some benziminazole derivatives
AU Feitelson, B. N.; Mamalis, P.; Moualim, R. J.; Petrow, V.; Stephenson, O.; Sturgeon, B.
CS Brit. Drug House, Ltd., London
SO Journal of the Chemical Society (1952) 2389-98
CODEN: JCSOA9; ISSN: 0368-1769
DT Journal
LA Unavailable
AB (CH2)10(CO2H)2 (1.1 g.), 900 mg. o-C6H4(NH2)2, and 4 N HCl, heated 5 h. at 135°, give decamethylenebis(2-benzimidazole) (I), m. 298-9° (di-HCl salt, m. 261-3°). I (4.69 g.) in concentrated H2SO4, treated at 0° with 3.62 g. KNO3 and stirred 2 h., yields the 5-NO2 derivative (II), with 2 mols. H2O [sulfate (5.77 g.), m. 255-6°]. The following homologs of II were prepared (n given): 2 (III), with 2 mols. H2O, m. 289-90°, 77%; 3, m. 165°, 69%; 4, m. 263°, 80%; 5, with 2 mols. H2O, m. 208°, 87%; 6, with 2 mols. H2O, m. 248-9°, 78%; 8, m. 136°, 93%. III (2 g.) in 100 mL. MeOCH2CH2OH, reduced at room temperature over Raney Ni and the solution treated with 4 mL. concentrated HCl, gives 85% ethylenebis(5-amino-2-benzimidazole)-4HCl, m. 345°; the following homologs were similarly prepared (n given): 3, m. above 300°, 81%; 4, m. above 300°, 86%; 5, m. above 300°, 62%; 6, m. above 345°, 73%; 8, m. 324-5°, 86%. (:CHCOCl)2 (5.1 g.), 9.2 g. o-O2NC6H4NH2, and 50 mL. C6H6, refluxed until HCl evolution ceases, give 83 % fumarobis (o-nitroanilide) (IV), pale yellow, m. 283°; reduction of 4 g. IV in 150 mL. hot dioxane over Raney Ni and refluxing 2 h. with 5 N alc. HCl give ethylenebis(2-benzimidazole)-2HCl.2H2O, m. above 330°. (CH2CH2COCl)2 (from 2 g. acid) and 4.1 g. 2,4-O2N(NC)C6H3NH2, heated 1 h. at 190°, give 57% adipobis(4-cyano-2-nitroanilide), yellow, m. 221-2°; reduction over Raney Ni in hot EtOCH2CH2OH and heating 1 h. with 5 mL. concentrated HCl give the di-HCl salt, brown, m. 203°, of tetramethylenebis(5-cyano-2-benzimidazole), with 2 mols. H2O, m. 260-1°; octamethylene homolog, m. 145°, 42%. (CH2)5(COCl)2 (from 8.15 g. acid) and 18.3 g. 2,4-(O2N)2C6H3NH2, heated 1 h. at 170-80°, give 55% pimelobis(2,4-dinitroanilide), yellow, m. 188°; it could not be converted into a benzimidazole derivative. 2-Methyl-5-nitro-1-phenylbenzimidazole forms a methosulfate, m. 210° (decomposition) and a methochloride, m. 182° (decomposition). 5-Amino-2-methyl-1-phenylbenzimidazole methochloride-HCl.3H2O, m. 190° (decomposition). 2,4'-Diacetamido-4-nitrodiphenylamine, yellow, m. 236°, heated 40 min. with 4 N HCl, this yields 66% 1-(p-aminophenyl)-2-methyl-5-nitrobenzimidazole (V), m. 190° (Ac derivative, m. 108°); reduction over Raney Ni gives the 1-(p-aminophenyl) analog (VI), m. 230° (di-Ac derivative, m. 220°). The methochloride-HCl.4H2O from V, hygroscopic, m. above 300°; the methochloride-2HCl.5H2O from VI, hygroscopic, decomps. 200°. 1-Methyl-2-(p-nitrophenyl)benzimidazole (4 g.) and 10 mL. MeI in 10 mL. MeOH, heated 3 h. at 120° and extracted with 500 mL. boiling H2O, give the insol. methoperiodide, C15H14-O2N3I3, brown, m. 182°; the aqueous filtrate deposits the methiodide, yellow, m. 297° (decomposition). 1-Methyl-5-nitro-2-(p-nitrophenyl)benzimidazole (VII) yields a methosulfate, m. 280°; methobromide, pale yellow, m. 255°; methochloride, m. 242° (decomposition). Reduction of VII in EtOH over Raney Ni and acetylation give 5-acetamido-2-(p-acetamidophenyl)-1-methylbenzimidazole, with 0.5 mL. H2O, m. 264-5°. Reduction of 5-nitro-2-(p-nitrophenyl)benzimidazole (VIII) in hot MeOH with SnCl2 gives 5-amino-2-(p-aminophenyl)benzimidazole-3HCl, m. above 320°; Ac2O in

L11 ANSWER 197 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
in AcOH (40 min. at room temp.) gives 5-acetamido-2-(p-acetamidophenyl)benzimidazole, with 0.5 mol. H2O, m. 358°; a methosulfate could not be prepd. 5-Amino-2-(p-aminophenyl)-1-phenylbenzimidazole, m. 265°; di-Ac deriv., m. 207°; methochloride-2HCl.5H2O, pale yellow, hygroscopic, m. 210° (decompn.). p-O2NC6H4CHO (20 g.) in 200 mL. hot AcOH, added to 20 g. 4,1,2-O2NC6H3(NH2)2 in hot AcOH and refluxed 5 h., 450 mL. AcOH removed by distn. (1 h.) (some VIII recovered), and the filtrate dild. with H2O, gives 11 g. 5-nitro-1-(p-nitrobenzyl)-2-(p-nitrophenyl)benzimidazole, pale orange-yellow, m. 256-8°. 2-(p-Diethylaminophenyl)benzimidazole, buff, m. 232°. 2-(p-Dimethylaminophenyl)-1-methyl-5-nitrobenzimidazole-HCl, m. 259°; the p-diethyl-aminophenyl analog m. 250°. 5-Iodo-1,2-phenylenediamine, silvery, m. 73°; 3,5-diiodo deriv., m. 112°. 5-Iodo-2-oxobenzimidazoline (IX) m. 250°; 5,7-diiodo deriv. (X), m. 230°. Decamethylenebis(5,6-dichloro-3-methyl-1-benzimidazolinium) dibromide, m. 232° (decompn.). The following 2-arylbenzimidazoles were prepd. from IX and X with 3,4-I-(HO)C6H3CHO, 3,5,4-I2(HO)C6H2CHO, and 4-O2NC6H4CHO: 5-iodo-2-Me, yellow, m. 220°; 5,7-diiodo-2-Me, cream, m. 257°; 2-(4-hydroxy-3-iodophenyl), m. 248°; 2-(4-hydroxy-3-iodophenyl)-1-methyl-5-nitro, m. 232°; 2-(4-hydroxy-3-iodophenyl)-5-iodo) m. 187°; 2-(4-hydroxy-3-iodophenyl)-5,7-diiodo, pale yellow, m. 190°; 5,7-diiodo-2-(p-nitrophenyl), yellow, m. 295°; 2-(p-aminophenyl)-5,7-diiodo, m. 143°; 2-(4-hydroxy-3,5-diiodophenyl), pale brown, m. 193°; 2-(4-hydroxy-3,5-diiodophenyl)-5,7-diiodo, pale yellow needles, m. 193°; 2-(p-hydroxyphenyl)-5,7-diiodo, cream, m. 230°; 2-(4-hydroxy-3,5-diiodophenyl)-5-iodo, pale yellow, m. 200°; 4-(p-dimethylaminophenyl)-5,7-diiodo, pale yellow, m. 158°; 1-(p-iodophenyl-2-methyl-5-nitro (HCl salt), yellow, m. 216°. 1-(2-Chloroethyl)-2-chloromethylbenzimidazole-HCl, m. 176-7° (decompn.), 5-Cl deriv., m. 194° (decompn.); 6-Cl deriv., m. above 290°; 5-Br deriv., m. 188-90° (decompn.); 5-chloro-6- Me deriv., m. 204-9° (decompn.), 5,6-di-Cl deriv., m. 190-2° (decompn.), 5,7-di-Cl deriv., m. 182-3°. Derivs. of benzimidazole-HCl: 5-chloro-2-chloromethyl-1-Me, m. 301-28° (decompn.), 5-chloro-1-(2-chloroethyl), m. 174-5°; 5-chloro-1-(2-chloroethyl)-6-Me, m. 180-1°; 6-chloro-2-chloromethyl-1-Me, m. 315-17° (decompn.), 6-chloro-1-(2-chloroethyl), m. 197-8°; 5,7-dichloro-1-(2-chloroethyl), m. 202-4°. The following N-substituted derivs. of various anilines were prepd.: 4-Chloro-2-nitroaniline: Bu, orange, m. 30-1°; benzyl, orange, m. 68°; 2-hydroxyethyl, orange, m. 104-5°. 4-Chloro-5-methyl-2-nitroaniline: Et, orange, m. 125-6°; Pr, orange, m. 67-8°; iso-Pr, orange, m. 90-2°; Bu, orange, m. 42-3°; benzyl, orange, m. 110-11°; 2-hydroxyethyl, vermilion, m. 171-2°; 2-hydroxypropyl, orange, m. 137-8°; 2,3-dihydroxypropyl, orange, m. 166°. 5-Chloro-2-nitroaniline: iso-Pr, orange, m. 43-4°; Bu, orange-yellow, m. 28°; benzyl, orange, m. 100-1°; 2-hydroxyethyl, red, m. 114-15°; 2,3-dihydroxypropyl, golden, m. 155-6°. 5-Chloro-6-methyl-2-nitroaniline: Et, orange, m. 58-9°; benzyl, orange, m. 54°; 2-hydroxyethyl, yellow, m. 75°. 4,5-Dichloro-2-nitroaniline: Me, orange, m. 148°; Et, orange, m. 120°; Pr, orange, m. 84-5°; benzyl, yellow, m. 104°; Ph, orange, m. 96°; 2,3-dihydroxypropyl, yellow, m. 142°. 4,5,6-Trichloro-2-nitroaniline: Me, orange-yellow, m. 72-3°; benzyl, orange-red, m. 65-6°; 2-hydroxyethyl, yellow, m. 104-5°. 4-Bromo-2-nitroaniline: Et, orange, m. 92°; Pr, red, m. 41°; iso-Pr, orange, m. 98°; benzyl, orange-red, m. 94°; 2-hydroxyethyl, yellow, m. 90-1°; 2,3-dihydroxydropyl, orange-yellow, m. 102-3°. Derivs. of 5-chlorobenzimidazole: 1-Me (HCl salt), m. 243-5°; 1,2-di-Me (HCl salt), m. 277°; 1-Bu (picrate), yellow, m. 185-6°; 2-hydroxymethyl, gray, m. 210°; 1-methyl-2-hydroxymethyl, m. 181-2°;

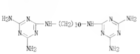
L11 ANSWER 197 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
1-(2-hydroxyethyl), m. 83-4°; 1-(2-hydroxyethyl)-2-hydroxymethyl, m. 150-1°. 5-Chloro-6-methylbenzimidazole: 1-Me, with 0.5 mol. H2O, m. 114-115° [HCl salt, m. 255-60°; picrate, yellow, m. 274-5° (decompn.); methiodide, m. 255° (decompn.), methochloride, m. 220-1° (decompn.); 1-Et, cream, m. 87°; 1-Pr, m. 63-4° (HCl salt, with 1 mol. H2O, m. 93-5°; picrate, yellow, m. 198°); 1-iso-Pr (picrate), yellow, m. 257°; 1-Bu (picrate), yellow, m. 197-9°; 1-benzyl, m. 155-6°; 1-(2-hydroxyethyl), m. 155-6°; 1-(2-hydroxyethyl)-2-hydroxymethyl, m. 149-51°; 1-(2,3-dihydroxypropyl), m. 140° (3-methiodide, m. 188°; 3-methochloride, m. 239°); 3-(2,3-dihydroxypropyl)(1-methochloride), m. 236-7° (decompn). 6-Chlorobenzimidazole: 1,2-di-Me, m. 158°; 1-Et (HCl salt, m. 211-13°; picrate, yellow, m. 236-7°); 1-iso-Pr (HCl salt, with 1 mol. H2O, m. 194-6°; picrate, yellow, m. 211°); 1-Bu (HCl salt, with 1 mol. H2O, m. 178-9°; picrate, yellow, m. 147°); 1-benzyl, m. 137-8°; 1-methyl-2-hydroxymethyl, m. 180-2°; 1-(2-hydroxyethyl), m. 146°; 1-(2,3-dihydroxypropyl), m. 156-7° (3-methiodide, m. 172-3°), 1-(2-hydroxyethyl)-2-hydroxymethyl, with 1 mol. H2O, m. 178-9°. 6-Chloro-7-methyl-benzimidazole: 1-Et (HCl salt, m. 264°; picrate, yellow, m. 211-12°); 1-(2-hydroxyethyl), cream, m. 186-7° (HCl salt, m. 225°). 5,6-Dichlorobenzimidazole: 1-Me, m. 174° (methiodide, m. above 270°); 1,2-di-Me, m. 200° (picrate, lemon, m. 268°); 1-Et, m. 117-18°; 1-benzyl, m. 144°; 1-Ph, m. 131-2°; 2-hydroxymethyl, m. 278° (decompn.); 2-hydroxymethyl-1-Me, m. 195°; 1-(2-hydroxyethyl), m. 162°; 1-(2,3-dihydroxypropyl), m. 152-3° (3-methiodide, m. 216°; 3-methochloride, m. 245-6°); 1-(2-hydroxyethyl)-2-hydroxymethyl, with 1 mol. H2O, m. 168°. 5,7-Dichlorobenzimidazole: 1-Me, with 0.5 mol. H2O, cream, m. 137-8°; 2-Me, m. 218-19° [HCl salt, m. 300° (decompn.)]; picrate, yellow, m. 262° (decompn.), 2-hydroxymethyl, cream, m. 210°; 1-(2-hydroxyethyl), m. 152-3°; 1-(2,3-dihydroxypropyl, yellow, m. 180°; 1-(2-hydroxyethyl)-2-hydroxymethyl, m. 177-8°. 5-Bromobenzimidazoles: 1-Me, silver, m. 86-7° [picrate, lemon, m. 264° (decompn.)]; 1,2-di-Me, m. 137-8°; 1-Et, m. 55°; 1-benzyl, m. 112°; 1-(2-hydroxyethyl), m. 92°; 1-(2,3-dihydroxypropyl), m. 140° (picrate), yellow, m. 181°. None of the above Ph derivs. showed activity against Trypanosoma equiperdum. Certain compds. showed spasmolytic action of the peripheral musculotropic type when injected i.v. into mice. 5,6-Dichloro-1-methylbenzimidazole, in particular, caused a mephenesin-like paralysis lasting 24 h.
IT 58954-21-5P, Benzimidazole, 2,2'-decamethylenebis-
RL: PREP (Preparation)
(preparation of)
RN 58954-21-5 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,10-decanediyl)bis- (CA INDEX NAME)



L11 ANSWER 198 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1951:41644 CAPLUS
DN 45:41644
OREF 45:7157g-i
TI Derivatives of tropine
IN Adamson, Donald W.
PA Wellcome Foundation Ltd.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 644115		19501004	GB 1948-5632	19480225 <--

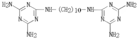
AB A solution of tropanone in Et2O is treated with organic Li compds. in Et2O in an atmosphere of N, treated with H2O, and the substituted 3-tropanol is precipitated with AcOH. The acetate gives the free base on shaking with CHCl3 and alkali, and the base gives any other salt. The 3-aryl-3-tropanol bases are converted into the quaternary ammonium salts with alkyl or aryl halides in Me2CO, MeOH, EtOH, or dioxane. Detailed method of preparation is described for 3-phenyl-3-tropanol, m. 164°, and its HCl salt, m. 244° (decomposition)(from dilute EtOH). The MeI compound m. 270°.
IT 78326-99-5P, Melamine, N2,N2'-decamethylenedi-
RL: PREP (Preparation)
(preparation of)
RN 78326-99-5 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,10-decanediylbis- (9CI) (CA INDEX NAME)



L11 ANSWER 199 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1951:41643 CAPLUS
DN 45:41643
OREF 45:7157e-g
TI Diethylenetrimelamine
IN Dudley, James R.
PA American Cyanamid Co.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2544071		19510306	US	<--

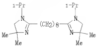
AB New and useful triazine derivs. are prepared. Diethylenetrimelamine (I) is prepared by treating cyanuric chloride 110 with 28% NH3 1640 aqueous parts to form an aqueous slurry of 2-chloro-4,6-diamino-s-triazine (II); this slurry is then refluxed with the addition of 206 parts NH(CH2CH2NH)2, and the reaction mass kept acid to phenolphthalein; addition of 1600 parts 10% aqueous NaOH and cooling precipitated 96%I, m. 185-95° (from hot water). II and (CH2NH2)2 gave ethylenedimelamine, m. 305° (decomposition). II and (p-H2NC6H4)2CH2 in the ratio 2:1 gave 75% CH2(C6H4NHR)2 (R = 4,6-diamino-2-s-triazinyl), m. 322-26°. II and 1,2-bis(cyclohexylamino)ethane in the ratio 2:1 gave 90.7% [R(C6H11)NCH2]2, m. 335-40° (from HOCH2CH2OEt). II and H2NCH2(CH2)8CH2NH2 gave decamethylenedimelamine, [RNH(CH2)5]2, m. 183-95° (from aqueous EtOH). II and (CH2NHPh)2 gave 77.5% (RNPhCH2)2, m. 350-5°.
IT 78326-99-5P, Melamine, N2,N2'-decamethylenedi-
RL: PREP (Preparation)
(preparation of)
RN 78326-99-5 CAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,10-decanediylbis- (9CI) (CA INDEX NAME)



L11 ANSWER 200 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1950:40781 CAPLUS
DN 44:40781
OREF 44:7839a-i,7840a
TI Amidines. XIII. Preparation of 2-substituted 4,5-dihydroglyoxalines and ring homologs from substituted amidines and alkylenediamines
AU Oxley, P.; Short, W. F.
CS Messrs. Boots Pure Drug Co., Ltd., Nottingham, UK
SO Journal of the Chemical Society (1950) 859-64
CODEN: JCSOA9; ISSN: 0368-1769
DT Journal
LA Unavailable
OS CASREACT 44:40781
AB cf. C.A. 43, 7445e. The following were prepared by the method given in part VI (C.A. 41,5469f): N-methylethylenediammonium bis(p-toluenesulfonate) (Ia), m. 176°, N-Et homolog, m. 158-9°. 2-Substituted 4,5-dihydroglyoxalines and ring homologs were prepared by heating an equimol. mixture of the N-substituted amidine, alkylenediamine, and acid (the last being introduced as free acid or as the amidinium, alkylenediammonium, or NH4 salt); often no solvent is necessary, but with compds. with a relatively high m.p., reaction is facilitated by the addition of a small excess of the alkylethylenediamine, PhNH2, PhNMe2, or PhNO2. Details are given of 23 such prepns., during which the following new compds. were prepared: 2-cyclohexyl-4,5-dihydroglyoxalinium p-toluenesulfonate, m. 171° (97.5% from N-phenylcyclohexanecarboxamidine), 2-phenyl-4,5-dihydroglyoxalinium benzoate, m. 115.5°, 77%, 2-(o-chlorophenyl)-4,5-dihydroglyoxalinium p-toluenesulfonate, m. 163°, 88%; 2-(3,4-dimethoxyphenyl)-4,5-dihydroglyoxalinium benzenesulfonate, m. 192-2.5°, 88%, 2-(2-naphthyl) analog, m. 188.5°, 82%. N-Phenylnicotinamidine gives 86% 1-(3-pyridyl)-2,7-diazacycloheptene, m. 102° (dipicrate, m. 177°). The following 2-substituted 1-alkyl-4,5-dihydroglyoxalines were prepared from the appropriate cyanide, 1 mol. N-alkylethylenediamine, and 1 mol. p-MeC6H4SO3NH4 by the method given in part VI: 2-Benzyl-1-methyl-4,5-dihydroglyoxaline (I) (1.5 hrs. at 190°), b1 107°, 92% (HCl salt, m. 88°, picrate, m. 125-5.5°), 2-(p-methoxybenzyl) analog (1 hr. at 190°), 69% (p-toluenesulfonate, m. 114°; picrate, m. 172.5°), 2-(1-naphthylmethyl) analog (1 hr. at 190°), 87% (HCl salt, m. 241°, picrate, m. 181-1.5°). (CH2)8(CN)2 (8.2 g.), 3.7 g. MeNHCH2CH2NH2, and 20 g. Ia, heated 2 hrs. at 190°, give 53% 1,8-bis(1-methyl-4,5-dihydro-2-glyoxalinyl) octane (II) (p-toluenesulfonate, m. 149.5-50.5°; picrate, m. 167°). 2-Benzyl-1-ethyl-4,5-dihydroglyoxaline, b1.5 109-12° (picrate, m. 141°, sulfate, deliquescent, m. 151-2°). PhCH2CN (11.7 g.), 7.3 g. 3,6-diazaoctane-1,8-diamine, and 18.9 g. p-MeC6H4SO3NH4, heated 90 min. at 190°, give 43% 1,2-bis(2-benzyl-4,5-dihydro-1-glyoxalinyl)ethane (III), m. 131-2° [di-HCl salt, m. 275° (decomposition), dipicrate, m. 235° (decomposition)]. Ph2C:NOSO2Ph (16.4 g.), 3 g. (CH2NH2)2, and 100 cc. C6H6, boiled 1 hr., give 32% (CH2NH2.PhSO3H)2; the filtrate on distn. yields 64% PhNH2; the residue yields 77.5% 2-phenyl-4,5-dihydroglyoxaline. Me2C:NOSO2Ph similar gives 74.5% 2-methyl-4,5-dihydroglyoxalinium picrate (IV). EtMeC:NOSO2Ph gives 48.5% IV and 7.5% of the 2-Et homolog. I (16.2 g.), 17.5 g. p-MeC6H4SO3Me, and 100 cc. C6H6, boiled 15 min. and treated with 2 N Li picrate, give 25 g. 2-benzyl-1,3-dimethyl-4,5-dihydroglyoxalinium picrate, m. 120°, chloride, deliquescent, m. 210°. 2-Benzyl-4,5-dihydroglyoxaline and p-MeC6H4SO3Me give (probably) N-(2-dimethylaminoethyl)-α-phenylacetamide picrate, m. 165.5-6°. III and p-MeC6H4SO3Me in boiling C6H6 give 91% of the bis(metho-p-toluenesulfonate), m. 167-9°, dimethopicrate, m. 175°. II yields 74% of the bis(metho-p-toluenesulfonate), m. 158-60°, dimethopicrate, orange, m. 134°. p-HOC6H4CH2CN and H2NCH2CH2OSO2C6H4Me-p, heated 1.5 hrs. at 155°, give 63% 2-(p-hydroxybenzyl)-4,5-dihydroglyoxalinium p-toluenesulfonate, m.

L11 ANSWER 200 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
146-7°; picrate, m. 161°. p-MeOC6H4CH2CN gives 60% of the p-toluenesulfonate, m. 138°, of 2-(p-methoxybenzyl)-4,5-dihydroglyoxaline, m. 121-2°; picrate, m. 119°. 2-Benzyl-4,5-dihydroglyoxaline (8 g.) and 1 g. 40% Co-kieselguhr, heated 45 min. at 250° and the C6H6 ext. shaken with 2 N HCl, give 72% 2-benzylglyoxalinium chloride, m. 176°. PhCH2CN (11.7 g.), 4 g. (CH2CH2NH2)2, and 20.9 g. (CH2)3(NHOSO2C6H4Me-p), heated 1 hr. at 190°, give 86% 2-benzyl-3,4,5,6-tetrahydropyrimidine, b0.5 135-6°, m. 114-14.5° (picrate, m. 174.5°, chloride, m. 210°).
IT 858224-03-0, 2-Imidazoline, 2,2'-octamethylenebis[1-methyl-
(and salts)
RN 858224-03-0 CAPLUS
CN 2-Imidazoline, 2,2'-octamethylenebis[1-methyl- (5CI) (CA INDEX NAME)

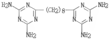
L11 ANSWER 201 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1950:38126 CAPLUS
DN 44:38126
OREF 44:7313c-g
TI The products formed from the reactions of 1,2-diamines and dibasic acids
AU Riebsomer, J. L.
CS Univ. of N. Mexico, Albuquerque
SO Journal of Organic Chemistry (1950), 15, 241-4
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA Unavailable
GI For diagram(s), see printed CA Issue.
AB 1,2-Diamines heated with HO2C(CH2)nCO2H condense with elimination of H2O and the formation of bis(imidazolines), NR.CH2.CR'2.N:C(CH2)nC:N.CR'2.CH2.NR (I). Me2CHNHCH2CMe2NH2 (II) (0.2 mol.) and 0.2 mol. (CO2H)2.2H2O in a small amount of C6H6 are heated in such a way that the H2O and C6H6 are distilled off as an azeotropic mixture through a 4-in. packed column and the C6H6 is returned to the flask. After the temperature has risen to 100° and 6.5 g. H2O has been collected, the temperature is raised within 3 hrs. to 190°, giving another 4.5 g. H2O; the C6H6 is then distilled off in vacuo, the residue extracted with ether, and the ether residue distilled, giving 16.2 g. oil, b25 55-85°. Redistn. gives 6 g. 1-isopropyl-4,4-dimethyl-2-imidazoline, b25 80-3°, in addition to some unchanged II. In the same way, when 26 g. CH2(CO2H)2 and 65 g. II in 150 cc. C6H6 are refluxed, then heated 7 hrs. at 180-200° and, finally, 1 hr. at 220°, 9 g. of a mixture (III), b23 71-130°, is obtained from the residue. III is separated by fractional distillation into 1-isopropyl-2,4,4-trimethyl-2-imidazoline (IV), b27 87-90°, and an AcOH complex of IV, C13H26O4N2, b27 130-3°. Heating equal mols. of II and adipic acid with C6H6 and, finally, 12 hrs. at 200-60° gives 26% [1,4-bis(1-isopropyl-4,4-dimethyl)-2-imidazolin-2-yl]butane (I, R = Me2CH, R' = Me, n = 4), b5 175-85°, crystals from petr. ether, m. 84-5°. In the same way the following I are prepared, (R, R', and n in the order given): Me2CH, Me, 2, 59% yield, m. 115-16°; n = 3 homolog (V), 33%, b4 170-4°; n = 7 homolog, 73%, b4 215-20°; n = 8 homolog, 70%, b2 210-15°; Ph, Me, 4, 64%, b2 235-7°. Attempts to prepare the HCl salt resulted in a cleavage with the formation of II.2HCl and the dibasic acid. V gives a dipicrate.
IT 858224-05-2P, 2-Imidazoline, 2,2'-octamethylenebis[1-isopropyl-4,4-dimethyl-
RL: PREP (Preparation)
(preparation of)
RN 858224-05-2 CAPLUS
CN 2-Imidazoline, 2,2'-octamethylenebis[1-isopropyl-4,4-dimethyl- (5CI) (CA INDEX NAME)



L11 ANSWER 202 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1949:19117 CAPLUS
DN 43:19117
OREF 43:3662d-h
TI Guanamine-aldehyde condensation products
PA American Cyanamid Co.
DT Patent
LA Unavailable
FAN.CNT 1

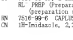
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 608186		19480910	GB 1946-4996	19460218 <--

GI For diagram(s), see printed CA Issue.
AB HCHO heated with compds. of the general formula R[C:N.C(NH2):N.C(NH2):N]2, in which R is a substituted or unsubstituted alkylene or phenylene radical, gives water-repellent coating materials for paper, textiles, and leather. Thus 37% formalin 18, and sebacoguanamine [R (CH2)8] (I) 12 parts are heated for 3-4 hrs. at 70° and dried, giving a grindable, solid resin, soluble in EtOH, BuOH, and hot water. When dissolved in alc., the material is suitable for lacquers. It is compatible with other aminoplasts. Similar plastics suitable for coatings or films are prepared from succinoguanamine, adipoguanamine, and terephthaloguanamine [R = -C:CH.CH:C-.CH:CH]. The guanamines are prepared by adding to biguanide 40, in MeOH 160, Bu sebacate 60 parts (or the corresponding amts. of Et succinate, Me adipate, or a suitable terephthalate), and allowing the mixture to stand 16 hrs. before filtering. Crude I m. 283°, 100% yield; the acetate, prepared by dissolving I 5, in EtOH 80, and AcOH 30, cooling, filtering, suspending in H2O 600 parts at pH 8.4, filtering off the insol. sebacoguanamine, washing, and drying, m. 308°. The resins may be suitably alkylated by mono- or polyhydric alcs. Also dyes, lakes, and pigments, softeners, and wetting agents may be incorporated and the resin may be emulsified by use of commonly available emulsifiers.
IT 4128-90-9P, s-Triazine, 2,2'-octamethylenebis[4,6-diamino-, formaldehyde condensation product
RL: PREP (Preparation)
(preparation of)
RN 4128-90-9 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,8-octanediyl)bis- (CA INDEX NAME)



L11 ANSWER 203 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1947:37344 CAPLUS
DN 41:37344
OREF 41:7395c-i,7396a-f
TI Substituted imidazoles and 2-imidazolines
AU Kyrides, L. P.; Zienty, F. B.; Steahly, G. W.; Morrill, H. L.
CS Monsanto Chem. Co., St. Louis, MO
SO Journal of Organic Chemistry (1947), 12, 577-86
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA Unavailable
OS CASREACT 41:37344
GI For diagram(s), see printed CA Issue.
AB Some 2-alkylimidazolines, NR.CR':N.CH2.CH2 (I), and 1,2-disubstituted imidazoles, NR.CR':N.CH:CH (II) are prepared to be tested for their chemotherapeutic activities. I and II are prepared according to the following procedures: (A) by reaction of the appropriate ester with H2NCH2CH2NH2 (III), followed by thermal cyclization of the N-acylethylenediamine (IV); (B) by cyclization of IV with CaO; (C) by dehydrogenation of the corresponding substituted I by heating it with Ni in the liquid phase; (D) by alkylation of the appropriate 2-substituted I (2 mols.) with 1 mol. RX in the presence or absence of an organic solvent such as PhMe or BuOH, or with R2SO4 in alkaline solution; (E) by alkylation of the appropriate 2-substituted imidazole with 1 mol. RX or R2SO4 without a solvent. According to method A, 0.6 mol. Me caproate and 0.9 mol. 96.8% III are refluxed 8 hrs. with stirring, the excess III is distilled off, and the residue distilled in vacuo, giving 57-65% 2-amyl-2-imidazoline (V), b17 139-41°. When the distillation residue is heated with Mg at 300°/35mm., addnl. V is obtained, raising the yield to over 90%. When according to method C, a mixture of 37.1 g. 1-amyl-2-hendecyl-2-imidazoline (VI) and 4.2 g. 50% Ni-petroleum paste is gradually heated with stirring to 245° over a period of 20 min., 76.6% 1-amyl-2-hendecylimidazole (VII), b1.5 170-80°, is obtained. Refluxing of a mixture of 50.4 g. I (R = H, R' = Me) (VIIa) and 74.7 g. C12H25Br (VIII) in 100 cc. C6H6 7 hrs., stirring the cold reaction mixture 1 hr. with 150 cc. H2O and 24 g. 50% NaOH, and filtering the waxy solid give 15 g. (CH2NHC12H25)2.H2O (IX), m. 71-2°. Distillation of IX gives the anhydrous compound, b1.5 225-30°, f.p. 39.8° (di-HCl salt sinters at about 272° and is identical with that prepared from III and VIII). Distillation of the C6H6 layer gives 3 fractions: (a) 38%, 1-dodecyl-2-methyl-2-imidazoline (X), b13 204-9°, b4 158-9°; (b) 8 g., b4 190-240°; and (c) 20 g., N-acetyl-N,N'-didodecylthylenediamine (XI), b4 243-50°. XI is very resistant to hydrolysis with alkali or acid, but when refluxed 15-20 hrs. with aqueous alc. HCl gives IX.2HCl, sintering at about 268°. When VIIa is alkylated with C12H25Cl (XII), 38% X is obtained. According to method D, 50 g. I (R = H, R' = C11H23) (XIII) is ethylated with Et2SO4 and 9.8 g. NaOH in 15 cc. H2O at 70-80°, giving 42% 1-ethyl-2-hendecyl-2-imidazoline, b2.5 170-8°, in addition to 13 g. unchanged XIII. Alkylation of 90 g. XIII by dropwise addition of 21.3 g. AmCl over a period of 0.5 hr. at 140-50° and heating the mixture 16 hrs. at 150° give 70% 1-amyl-2-hendecyl-2-imidazoline (XIV), b5.5 180-200°. II (R = Am, R' = C11H23), b10 218-19°, is obtained in 55% yield according to method E when equimol. amts. of II (R = H, R' = C11H23) and AmCl are heated at 125-30° 3 hrs., cooled to 30°, treated with 50% NaOH, and the filtered solution is extracted with C6H6. When 8.2 g. sebaconitrile in 4.6 g. absolute EtOH is saturated with HCl at 0°, 19.4 g. sebacic acid diimido ester (XV), m. 85-6° (decomposition), is obtained. 2,2'-Octamethylenedi-2-imidazoline, prepared from 19.4 g. XV in 70% yield according to the method of Sonn (C.A. 30, 487), long prismatic needles, m. 185-7°. 1-Dodecyl-2-methylbenzimidazole is prepared from 2 mols. 2-methylbenzimidazole and 1 mol. XII in 58% yield and b5 225-7°. Et pentadecanoate, b5 156-8°, is prepared in 87% yield by refluxing a mixture of 150 g. 95% EtOH, 150 g. H2SO4, and 68 g. C14H29CN 4 hrs. Et tridecanoate is prepared in the same way in 90% yield and b4 133-4°.

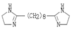
L11 ANSWER 203 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
Et 2-tetradecenoate, b11 165-7°, is prepd. in 62% yield on esterification of the free acid which in turn is obtained by debromohydrogenation of bromomyristic acid. Me cyclohexanebutyrate, b24 124°, is prepd. in 75% yield by hydrogenation of Me γ-phenylbutyrate in the presence of Ni. The following substituted I are prepd.: R = C7H15, R' = Me, method D, 69% yield, b2.5 107-9°; R = C10H21, R' = Me, D, 59%, b3 135-6°; R = C12H25, R' = Me, D, 38%, b2 161-2°; R = C14H29, R' = Me (XVI), D, 50%, b6 191-3°; R = PhCH2, R' = Me, D, 39%, b16 162-3°; R = C10H21, R' = Am, D, 43%, b1.5 164-6°; R = C12H25, R' = Am, D, 46%, b3 196-7°; R = Me, R' = C7H15, D, 33%, b2 93-6°; R = Me, R' = C9H19, D, 60%, b5 142-3°; R = Me, R' = C11H23, D, 41%, b6 167-72°; R = Am, R' C11H23, D, 61%, b2 172-3°; R = H, R' = C12H25, A, 57%, b3 163-5°, m. 87-8°; R = H, R' = C13H27, A, 65%, b2 179-80°, m. 88-9°; R = H, R' = 1-tridecenyl, B, 66%, b13 207-18°; R = H, R' = C14H29, A, 72%, b4 191-5°, m. 92-3°; R = H, R' = Ph(CH2)3, A, 71%, b20 202-3°; R = H, R' = C6H11(CH2)3, A, 73%, b5 159-60°. The following II are prepd.: R = C7H15, R' = Me, method C, 89% yield, b2.5 118-22°; R = C10H21, R' = Me, C, 96%, b3 157-8°; R = C12H25, R' = Me, C, 93%, b3 164-6°; R = C14H29, R' = Me, C, 90%, b2 185-6°; R = C10H21, R' = Am, C, 94%, b2 175-6°; R = C12H25, R' = Am, C, 95%, b1 184-5°; R = Me, R' = C7H15, C, 86%, b25 166-9°; R = Me, R' = C9H19, C, 81%, b3.5 149-54°; R = Me, R' = C11H23, E, 39%, b3.5 134-67°, C, 67%, b2.5 158-72°; R = Am, R' = C11H23, E, 55%, b10 218-19°, C, 88%; R = H, R' = C12H25, C, 85%, b3 194-6°, m. 77-8°; R = H, R' = C13H27, C, 89%, b1.5 208-10°, m. 81-2°; R = H, R' = 1-tridecenyl, C, 81%, b13 230-41°; R = H, R' = C14H29, C, 81%, b3 219-21°, m. 83-4°; R = H, R' = C15H31, C, 84%, b3.5 220-3°, m. 87-8°; R = H, R' = PhCH2, C, 92%, b12 201-2°, m. 125-6°; R = H, R' = Ph(CH2)3, C, 77%, b2 194-5°, m. 90-1°; R = H, R' = C6H11(CH2)3, C, 85%, b7 190-5°, m. 78-9°. In the prepn. of XVI, N,N'-ditetradecylethylenediamine-H2O, m. 72-3°, is obtained as a by-product.
IT 7516-99-6P, 2-Imidazoline, 2,2'-octamethylenedi-
RL: PREP (Preparation)
(preparation of)
RN 7516-99-6 CAPLUS
CN 1H-Imidazole, 2,2'-(1,8-octanediyl)bis[4,5-dihydro- (CA INDEX NAME)



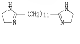
L11 ANSWER 204 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1947:27409 CAPLUS
DN 41:27409
OREF 41:5469f-i,5470a-i,5471a-d
TI Amidines. VI. Preparation of 2-substituted 4,5-dihydroglyoxalines and ring homologs from cyanides and alkylenediamines
AU Oxley, P.; Short, W. F.
CS Messrs. Boots Pure Drug Co. Ltd., Nottingham, UK
SO Journal of the Chemical Society (1947) 497-505
CODEN: JCSOA9; ISSN: 0368-1769
DT Journal
LA Unavailable
OS CASREACT 41:27409
AB Derivs. of 4,5-dihydroglyoxaline substituted in position 2 are important because of their influence on the circulatory system. These compds. can be prepared from a cyanide and a neutral sulfonate of (CH2NH2)2 at 220-50°. When 2 mol. proportions of the cyanide are used, a considerable quantity of an amidinium salt is simultaneously produced by the reaction between the cyanide and the NH4 salt formed in the ring closure. The heterocyclic nucleus is formed so readily that attempts to isolate the intermediate amidinium salt were unsuccessful. Ring formation is prevented by the introduction of alkyl groups. p-MeC6H4SO3H.H2O (190 g.) in 100 cc. H2O, neutralized with 40 cc. (CH2NH2)2 to Congo red, 40 cc. (CH2NH2)2 added, the solution evaporated to dryness on the steam bath at 5 mm., and the residue crystallized from iso-PrOH, gives 89-94% 2-(aminoethyl)ammonium p-toluenesulfonate (I), m. 123°. Neutralization of p-MeC6H4SO3H with (CH2NH2)2 and crystallization from 50% aqueous EtOH give ethylenediammonium bis(p-toluenesulfonate) (II), m. 360° (decomposition). Trimethylenediammonium bis(p-toluenesulfonate) (III), m. 251°, heat is evolved when III is added to (CH2)3(NH2)2 but only III can be obtained on crystallization of the mixture. (CH2)4(NH2)2 (preparation in 67.7% yield given)
yields
75.8% tetramethylenediammonium bis(p-toluenesulfonate) (IV), m. 224°. Hexamethylenediammonium bis(p-toluenesulfonate), m. 183°. The cyanide (0.02-0.1 g.-mole) and 1 mol of I or 0.5 mol of base and 0.5 mol II-IV per mol of cyanide or per 0.5 mol dicyanide are refluxed until NH3 is no longer evolved. Stirring is necessary where the mixts. are not homogeneous. When an NH4 salt is employed, the cyanide is usually added after initial heating of the base and salt. PhCH2CN (5.85 g.) and 11.6 g. I, heated 1 h. at 200°, the product in 20 cc. H2O made alkaline with 5 N NaOH, and extracted with CHCl3, give 91% 2-benzyldihydroglyoxaline (V), b2 125°, m. 66-8° (p-toluenesulfonate, m. 91°); 58.5 g. PhCH2CN, 33.25 g. II, and 15 g. (CH2NH2)2, 1 h. at 200°, refluxed 36 h., give 50% V; the distillation residue yields 15% N,N'-ethylenebis(phenylacetamide), m. 204° (probably results by the action of the H2O in the (CH2NH2)2). PhCN(10.3 g.) and 20.2 g. II, 60 h. at 270° and the product crystallized from H2O, give 20% benzamidine p-toluenesulfonate, m. 195°; extraction of the filtrate with C6H6 gives 42% 2-phenyldihydroglyoxaline (VI), b5 162°, m. 101° (picrate, m. 242°, p-toluenesulfonate, m. 165°, benzenesulfonate, m. 141°); 5.15 g. PhCN, 3.35 g. (CH2NH3Cl)2, and 1.5 g. (CH2NH2)2, 2.5 h. at 200°, give 36% VI and 64% unchanged PhCN. p-NCC6H4SO2Me (VII) (9.05 g.) and 11.6 g. I, 0.5 h. at 200°, give 89% of the p-toluenesulfonate (VIII), m. 265°, of 2-(4-methylsulfonylphenyl)dihydroglyoxaline (IX), m. 213.5° (chloride (X), m. 337° (decomposition)); 9.05 g. VII and 20.2 g. II, 0.5 h. at 270°, give 86% VIII; 9.05 g. VII, 3.35 g. (CH2NH3Cl)2, and 1.5 g. (CH2NH2)2, 0.5 h. at 200°, give 92% X; 4.5 g. VII and 1.75 g. (CH2NH2)2, 1.75 h. at 205-10°, give 90% IX. PhSO2NMeBz (13.75 g.) and 3.35 g. (CH2NH3Cl)2, heated 15 min. at 225° after the initial vigorous evolution of HCl and the basic oil in MeOH treated with

L11 ANSWER 204 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
H2NSO3H, give 5 g. 2-phenyldihydroglyoxalinium sulfamate, m. 220° (decompn.); the mother liquor yields 42% N,N'-dimethylbenzamidine sulfamate, m. 159°. (CH2NHSO2C6H4Me-p)2 (as the K salt) and BzCl give 70% 1,2-bis[benzoyl(p-tolylsulfonyl)amino]ethane (XI), m. 195°, 9.45 g. p-MeC6H4SO3NH4 (XII) and 14.4 g. XI, heated 1 h. at 200-5°, give 58.5% PhCN and 93% VI. XII and Et2N(CH2)2NH2 (XIII), heated at 100° until NH3 evolution ceases, mixed with 5.2 g. PhCN, and heated 1 h. at 200°, give 40% N-(2-diethylaminoethyl)benzamidine, b0.5 152-6° (dipicrate, m. 134-5°, di-HCl salt, with 3 mols. H2O, deliquescent, no definite m.p.). Equimol. quantities of XII, XIII, and VII give 55% unchanged VII and 20% p-[N-(2-diethylaminoethyl)guanyl]phenyl Me sulfone (dipicrate, m. 202°, di-HCl salt, with 2 mols. H2O, decomp. 100°).
2-Substituted dihydroglyoxalines: Bu (5 h. at 160°), m. 41.4°, 96% (p-toluenesulfonate, m. 98°), 4-aminobenzyl (6 h. at 140°), m. 124°, 74% (picrate, m. 138.5°; dipicrate, m. 195° (decompn.), p-toluenesulfonate, m. 190°), 4-sulfamylbenzyl (2.25 h. at 180°), 100% (picrate, m. 168.5°, p-toluenesulfonate, m. 213-13.5°, the latter crystallizes unchanged from 2 N Na2CO3), 1-naphthylmethyl (XIV) (0.5 h. at 175-80°, 0.5 h. at 200°), m. 119.5°, 99% (chloride, m. 258-9°, picrate, m. 197°, p-toluenesulfonate, m. 143.5°, 1-C10H7CH2CN and (CH2NH2)2.HCl, 1.25 h. at 180-5°, give 71% XIV), 4-chlorophenyl (1 h. at 160°), m. 187°, 90% (picrate, m. 206-6.5°; p-toluenesulfonate, m. 218°), 4-methoxyphenyl (1.5 h. at 200°), m. 140°, 72% (picrate, m. 209°, p-toluenesulfonate, m. 201°); 3,4-dimethoxyphenyl (1 h. at 200°), m. 158.5°, 34% (picrate, m. 206°); 2-nitrophenyl (1 h. at 160°), m. 98° 74% (picrate, m. 185°), 4-sulfophenyl (0.25 h. at 160°), m. above 360° (it forms no salts), 4-sulfamylphenyl (0.5 h. at 160-225°), m. 245°, 81% (p-toluenesulfonate, m. 253.5°); 1-naphthyl (3 h. at 200°), m. 133.5-4°, 66% (picrate, m. 246°); 2-naphthyl (2 h. at 160°), m. 118°, 75.5% (picrate, m. 205°; benzenesulfonate, m. 188.5°; p-toluenesulfonate, m. 190°); 2-pyridyl (20 min. at 200°), m. 98.5-9°, 95% (picrate, m. 235°; p-toluenesulfonate, m. 145-6°), 3-pyridyl (20 min. at 200°), m. 111-11.3°, 96% (picrate, m. 216.3°; p-toluenesulfonate, m. 172°). 1,2-Bis(dihydro-2-glyoxalinyl)ethane (10 min. at 150° and 10 min. at 200°) m. 235° (decompn.), 99% (p-toluenesulfonate, m. 245°), 1,3-propane homolog (0.5 h. at 170° and 0.5 h. at 200°), 84% (p-toluenesulfonate, m. 148°); 1,4-butane homolog (0.5 h. at 170° and 0.5 h. at 200°) m. 218.5-19.5°, 93% (p-toluenesulfonate, m. 176°); 1,5-pentane homolog (0.5 h. at 170° and 0.5 h. at 200°) 96% (p-toluenesulfonate, m. 157°); 1,8-octane homolog (0.5 h. at 170° and 1 h. at 225°) m. 187.5°, 93% (p-toluenesulfonate, m. 161-1.5°); 1,11-hendecane homolog (1.5 h. at 175-225°) m. 162°, 91% (p-toluenesulfonate, m. 161.5-2.5°). 4,4'-Bis(dihydro-2-glyoxalinyl)biphenyl (0.5 h. at 225°), 100% (p-toluenesulfonate, m. about 375° (decompn.); stilbene analog (0.75 h. at 200-45°), 65% (p-toluenesulfonate, m. 347°). 2-Phenyl-3,4,5,6-tetrahydropyrimidine (0.5 h. at 140°) m. 86-7°, 94.5% (p-toluenesulfonate, m. 122.5°), 4-sulfophenyl analog (0.25 h. at 160°) m. above 360°, 98%, 4-methylsulfonylphenyl analog (1.5 h. at 255°) m. 173.5°, 71% (p-toluenesulfonate, m. 187°); 1-naphthylmethyl analog (1 h. at 165° and 1 h. at 225°) m. 124°, 95% (HCl salt, m. 214°; picrate, m. 258° (decompn.), p-toluenesulfonate, m.

L11 ANSWER 204 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
183.5°), 2-pyridyl analog (1.5 h. at 200°) m. about 15°, 96% (picrate, m. 186.5°, bis(p-toluenesulfonate), m. 65°, very deliquescent). 1,2-Bis(tetrahydro-2-pyrimidyl)ethane (0.5 h. at 140°) m. about 200° (decompn.), 94.5% [bis(p-toluenesulfonate), m. 285°]. 1-Benzyl-2,7-diazacycloheptene (2 h. at 200°), 99% (picrate, m. 131°), Ph analog (1 h. at 200°) m. 105°, 88% (picrate, m. 184°, p-toluenesulfonate, m. 153-3.5°), 4-sulfophenyl analog (0.25 h. at 160°) m. above 360°, 83%, 4-methylsulfonylphenyl analog (1 h. at 200°) m. 175°, 83% (picrate, orange, m. 155° or (on crystn. from EtOH) yellow, m. 186°). 1,4-Bis(2,7-diazacycloheptenyl)butane (1 h. at 200°) gives 30% of the bis(p-toluenesulfonate), m. 85°. The practical limit of the method appears to be reached with the formation of 2,7-diazacycloheptenes, since attempts to produce 8- and 9-membered ring compds. result in the formation of mixts. from which pure compds. could not be isolated.
IT 7516-99-6P, 2-Imidazoline, 2,2'-octamethylenedi-
858224-23-4P, 2-Imidazoline, 2,2'-undecamethylenedi-
RL: PREP (Preparation)
(preparation of)
RN 7516-99-6 CAPLUS
CN 1H-Imidazole, 2,2'-(1,8-octanediyl)bis[4,5-dihydro- (CA INDEX NAME)



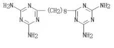
RN 858224-23-4 CAPLUS
CN 2-Imidazoline, 2,2'-undecamethylenedi- (5CI) (CA INDEX NAME)



L11 ANSWER 205 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1946:29438 CAPLUS
DN 40:29438
OREF 40:5776e-i,5777a
TI Aliphatic-substituted guanamines
IN Thurston, Jack T.
PA American Cyanamid Co.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2394526		19460205	US	<--

GI For diagram(s), see printed CA Issue.
AB 2-Aliphatic-substituted 4,6-diamino-1,3,5-triazines referred to in the specification as 2-aliphatic guanamines, having neg. substituents in the aliphatic chain, can be prepared in satisfactory yields. Biguanide is combined with an ester of an aliphatic acid containing a neg. group, such as cyano, carboxy, carbalkoxy, sulfo, nitro, acid amide, carbonyl, hydroxy, or alkoxy. The biguanide is dissolved in MeOH or EtOH or in the Et ether of ethylene glycol, or other suitable solvent, and the ester is added. E.g., 24 parts of biguanide were dissolved in 160 parts of MeOH and 29 parts of NCCH2CO2Et were added. The cyanoacetoguanamine (I) precipitated, was recrystd., and was recovered as a light yellow powder, m. 273°. β-Ethoxypropionoguanamine, m. 164-5°; β-amoxypropionoguanamine, m. 119-20°, β,β'-oxydipropionoguanamine, m. 310°; N4-phenyl-β-methoxypropionoguanamine, m. 118°; lactoguanamine, m. 254°; 2-carbomethoxypropionoguanamine, m. 159°; β-methoxy-β-octylcarbamylpropionoguanamine, m. 146-8°; 2-(4-ethyl-2-cyano-2-octeno)guanamine, which may have the structure 3-amino-5-cyano-1-guanyl-6-heptyl-4(1)-pyrimidone, m. 323-6°; α-bromoisovaleroguanamine, m. 196-7°; α,α-dichlorostearoguanamine; (amoxysuccino)guanamine and β-carboxy-β-amoxypropionoguanamine, m. 253-5°, itaconoguanamine and β-methylene-β-carboxypropionoguanamine, levulinoguanamine, m. 184-5°, and, probably, 2-amino-3-guanyl-6-(1-hydroxyethyl)-4(3)pyrimidone, m. 305-10° (decomposition), malonoguanamine and carboxyacetoguanamine, succinoguanamine, m. above 335°, and β-carbomethoxypropionoguanamine, m. 159°, glutaroguanamine, m. above 340°, adipoguanamine, m. 301°; sebacoguanamine, m. 308°, and θ-carboxypelargonoguanamine, m. 223-5°, and its Me and Bu esters, β-carboxyacryloguanamine, becomes brown at 335°, β-sulfopropionoguanamine, decompose 255-60°, β-sulfo-β-carboxypropionoguanamine, 10-sulfodecanoguanamine, N4-phenyl-β-sulfopropionoguanamine, 11-acetylhendecanoguanamine, m. 158-9°, γ-nitrovaleroguanamine, 10-bromodecanoguanamine, m. 143-4° (impure), θ,ι-dibromostearoguanamine, m. 93-6°.
IT 4128-90-9P, s-Triazine, 2,2'-octamethylenebis[4,6-diamino-
RL: PREP (Preparation)
(preparation of)
RN 4128-90-9 CAPLUS
CN 1,3,5-Triazine-2,4-diamine, 6,6'-(1,8-octanediyl)bis- (CA INDEX NAME)

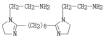


L11 ANSWER 205 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

L11 ANSWER 206 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1946:3684 CAPLUS
DN 40:3684
OREF 40:609i,610a-e
TI Imidazolines
IN Kaplan, Saul
PA Richards Chemical Works
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2374354		19450424	US 1942-656042	19420113 <--

AB Polymerized amino diimidazoline derivs. are described (generally soft resinous compds. of a hygroscopic nature) which are useful as cationic softening agents, flotation agents, and emulsifying agents. They may be used for fixing direct dyes so that they are fast to H2O, for stripping vat dyestuffs, for breaking crude-oil emulsions, and as intermediates for germicides, fungicides, and mothproofing agents. The monomers are prepared from a polyalkylene polyamine with a dibasic carboxylic acid. The amines include diethylenetriamine, triethylenetetramine, tetraethylenepentamine, dipropylenetriamine, tripropylenepentamine, tetrapropylenepentamine, or a mixture of these. The acids include adipic, suberic, and sebacic acids and their homologs and substitution products, phenylenediacetic, terephthalic, 1,4-, 1,5- or 1,6-naphthalenedicarboxylic acids, etc. Sebacic acid (202 parts) and 566 parts of diethylenetriamine in PhMe, heated to about 150° until about 72 parts (by weight) of H2O are given off, give 2,2'-octamethylenebis(1-aminoethylimidazoline) (I); similarly, 146 parts of adipic acid and 566 parts of diethylenetriamine give the tetramethylene homolog (II) of I. 2,2'-p-Phenylenebis(1-aminoethylaminoethylaminoethylimidazoline) (III) is prepared from dimethyl terephthalate and tetraethylenepentamine. The polymerization of I is carried out by treating 336 parts in 33 parts of (CH2OH)2 and 33 parts of butyl cellosolve with 3 lots of 37.6 parts of propylene dichloride at intervals of 2-3 hrs., with heating at about 145° ;the reaction product is solid at room temperature and is best dissolved by cooling to 90° and adding 70% AcOH or other acid. II is polymerized by heating 280 parts with 38 parts butyl cellosolve and 83 parts of ClCH2CO2Me for 8 hrs. at 150° ;the reaction product is neutralized with lactic acid to a pH of 4.5. III (470 parts) and 101 parts of sebacic acid, with sufficient toluene so that the reflux temperature is about 180° , are heated for 3 hrs.; in another experiment 470 parts of III and 87 parts of Et2CO3 are heated for 8 hrs. at 150° . Polymerization and acylation expts. with I and III are described, in which one primary N may be acylated and the resulting product polymerized.
IT 99760-98-2P, 2-Imidazoline, 2,2'-octamethylenebis[1-(2-aminoethyl)-
RL: PREP (Preparation)
(preparation of)
RN 99760-98-2 CAPLUS
CN 1H-Imidazole-1-ethanamine, 2,2'-(1,8-octanediyl)bis[4,5-dihydro- (CA INDEX NAME)

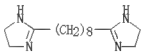


L11 ANSWER 206 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

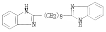
L11 ANSWER 207 OF 209 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1942:16696 CAPLUS
DN 36:16696
OREF 36:2566c-d
TI Imidazolines
PA I. G. Farbenindustrie AG
SO Addn. to Fr. 835,426 (C. A. 33, 4704.5)
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 49680		19390530	FR	19380823 <--

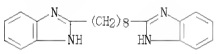
AB Ethyleneurea or one of its derivs. is caused to react, at a temperature above room temperature, with a dicarboxylic or polycarboxylic acid containing at least 8 C atoms. In examples are described the preparation of 2,2'-hexamethylenediimidazoline, b2.5 225-40° ,2,2'-heptamethylenediimidazoline, b3 230-50° ,2,2'-octamethylenediimidazoline, b4 270-80° ,1,3-di-2-imidazolinylbenzene, b8 290-310° ,and 1,3,5-tri-2-imidazolinylbenzene, m. 340° .
IT 7516-99-6P, 2-Imidazoline, 2,2'-octamethylenedi-
RL: PREP (Preparation)
(preparation of)
RN 7516-99-6 CAPLUS
CN 1H-Imidazole, 2,2'-(1,8-octanediyl)bis[4,5-dihydro- (CA INDEX NAME)



AN 1941:42355 CAPLUS
DN 35:42355
OREF 35:6591d-f
TI Bisbenzimidazoles from dibasic acids
AU Shriner, R. L.; Upson, Robert W.
SO Journal of the American Chemical Society (1941), 63, 2277-8
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA Unavailable
AB o-C6H4(NH2)2(0.1 mole), 0.05 mole of dibasic acid and 120 ml. 4 N HCl, refluxed (125-35°)for 7 hrs., give the following bisbenzimidazoles; the di-HCl salts were prepared with dry HCl in absolute EtOH (the 2nd temperature is for the salt; all melt with decomposition): ethylenebis, 325-30° ,28%, 312-15° ;trimethylenebis, 258-9° ,50%, 270-3° ,tetramethylenebis, 259-60° ,46%, 305-9° , pentamethylenebis, 225-6° ,62%, 270-2° ;hexamethylenebis, 263-6° ,56%, 296-9° ,heptamethylenebis, 273-5° ,63%, 269-72° ,octamethylenebis, 277-9° ,60%, 263-5° . (CO2H)2 forms 2,3-dihydroxyquinoxaline. CH2(CO2H)2 gives 80% of a compound, C9H8O2N2, decomps. 345-9° ,which may be some type of polyamide; 25% alkali gives o-C6H4(NH2)2.
IT 5233-14-7P, Benzimidazole, 2,2'-octamethylenebis-
860187-98-0P, Benzimidazole, 2,2'-octamethylenebis-, dihydrochloride
RL: PREP (Preparation)
(preparation of)
RN 5233-14-7 CAPLUS
CN 1H-Benzimidazole, 2,2'-(1,8-octanediyl)bis- (CA INDEX NAME)

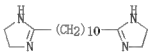


RN 860187-98-0 CAPLUS
CN Benzimidazole, 2,2'-octamethylenebis-, dihydrochloride (4CI) (CA INDEX NAME)



●2 HCl

AN 1940:624 CAPLUS
DN 34:624
OREF 34:79e-i,80a
TI Some amidines and amide oximes with trypanocidal activity
AU Lamb, I. D.; White, A. C.
SO Journal of the Chemical Society (1939) 1253-7
CODEN: JCSOA9; ISSN: 0368-1769
DT Journal
LA Unavailable
AB The amide oximes were prepared by mixing the dinitrile (0.025 mole) in 200 cc. EtOH with 7 g. NH2OH.HCl, adding 2.3 g. Na in 60 cc. EtOH and shaking at 60° for 20-30 hrs. Dicarboxamide oximes: pentane-1,5-, m. 142-4° (di-HCl salt, m. 150-5°),heptane-1,7-, m. 156° ,nonane-1,9-, m. 167° ,decane-1,10-, m. 184-6° (decomposition) (di-HCl salt, m. 149-58° ,di-Ac derivative, m. 129° and is deacetylated by cold dilute HCl); undecane-1,11-, m. 166° (di-HCl salt, m. 178°)(by-products in this preparation include undecane-1-carboxamide-11-carboxamide oxime, m. 157-8° ,whose HCl salt m. 144° and the 1-carbonitrile, m. 87-8° ,HCl salt, m. 84°),tridecane-1,13-, m. 170° (di-HCl salt, m. 158-60°)(the 1-carbonitrile derivative m. 98° ,HCl salt, m. 96°),biphenyl-4,4'-, m. 245° (decomposition) (di-HCl salt, m. 290° (decomposition)); diphenylmethane-4,4'-, m. 215° (di-HCl salt, decompose 220°);bibenzyl-4,4'-, decompose about 243° (di-HCl salt, pale yellow prisms); stilbene-4,4'-, m. above 320° (decomposition), was prepared from 4,4'-dicyanostilbene, orange, m. 278° (di-HCl salt, chars about 300°). The following dicarboxamidines were prepared from the nitriles by way of the imido esters: decane-1,4- (di-HCl salt, m. 227-8° (decomposition)); a by-product of the action of KCN on dibromodecane is decane-1-carbonitrile-10-carboxamide, m. 87° . Decanebis-(N,N'-diphenylcarboxamidine), m. 163-5° , N-cyclohexyl analog, m. 122° (di-HCl salt, m. 273°). Undecane-1-carbonitrile-11-carboxamide, m. 101° . Tridecane-1-carbonitrile-13-carboxamide, m. 103-4° , tridecane-1-carboxamide-13-carboxamidine-HCl, m. 164-5° , tridecane-1,13-dicarboxamide, m. 176° . Tetradecanemonocarboxamidine-HCl, m. 138° ,picrate, m. 166° . Di-Et decanedicarboximidate ether and C2H4(NH2)2, heated 8 hrs. at 70° ,give 1,10-bis(4,5-dihydro-2-glyxalinyl)decane, m. 181° , picrate, m. 223-4° ;HCl salt, m. 183° . The trypanocidal activity of these compds. has been investigated and data for several are given.
IT 81066-74-2, 2-Imidazoline, 2,2'-decamethylenedi-
(and salts)
RN 81066-74-2 CAPLUS
CN 1H-Imidazole, 2,2'-(1,10-decanediyl)bis[4,5-dihydro- (CA INDEX NAME)



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